



**MASSACHUSETTS BAY
TRANSPORTATION
AUTHORITY**

REQUEST FOR PROPOSALS

RFP NO. 1F-22

**PROCUREMENT OF 40-FOOT LOW FLOOR
BATTERY ELECTRIC BUSES**

DATE ISSUED: APRIL 22, 2022

SOURCING EXECUTIVE: AIDAN FLYNN

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1. PROPOSAL INFORMATION

1.1. Invitation and Description of Work

The Massachusetts Bay Transportation Authority (“MBTA” or “Authority”) invites Proposals from qualified Contractors to furnish and deliver 45 Forty-Foot Low Floor Battery Electric Buses (BEB) and other End Products to an MBTA facility within the greater Boston, Massachusetts area.

All End Products must be in accordance with Technical Specification VE21-054 (“Technical Specifications” or “Specifications”). The Specifications do not purport to be a complete description of work conditions. The Contractor is required to advise MBTA of work conditions noted but not herein defined.

To be considered a complete and responsive Proposal, the Bidder must thoroughly address the base scope of work, Section 1.1 (A), and the scope of work for each option as outlined in Section 1.1 (B).

- A. **Base Proposal.** The End Products to be provided by the successful Bidder include 45 Forty-Foot Low Floor Battery Electric Buses (BEB) with low-floor design, a corrosion-resistant steel or corrosion proof one-piece monocoque structure, electric propulsion, as well as Capital Spares, Manuals, Diagnostic Test Equipment, Special Tools, Training, Training aids, Operator Training Simulators, and associated materials, equipment, and services.

Major project schedule milestones that must be met in the base Proposal include:

Bus Numbers	Delivery Timing
Pilot Buses (Nos. 1 and 2)	2 nd quarter calendar year 2023 and 6 weeks prior to line entry of Production Buses Nos. 3 - 45
Production Buses (Nos. 3 – 31)	4 th quarter calendar year 2023
Production Buses (Nos. 32 – 45)	4 th quarter calendar year 2024 Last bus delivered no later than December 31, 2024

Failure to comply with the above subjects the Contractor to Liquidated Damages as defined in Section 7.66. The point of delivery shall be the approved Local Bus Commissioning Site as defined in Section 4.4.

- B. **Options.** The Authority reserves the right to exercise through one or more option(s) for furnishing additional Battery Electric Buses per the base configuration (Option 1), Battery Electric Buses with streetside boarding (Option 2), as well as adding technical work scope options to all buses (Options 3 through 13) within a five (5) year period from Notice to Proceed.

1.

The Authority reserves the right to exercise Option 1 and/or Option 2 for additional vehicles in a manner that is in the best interest of Authority and in line with annual fleet procurement goals. The total amount of buses procured under this RFP shall not exceed 460, comprised of the base order of 45 buses and a combined sum of buses procured under Options 1 and 2 of not more than 415 buses. Option vehicles are

to be built in accordance with Specification VE21-054 and TS Attachments as applicable, and confirmed by pilot bus(es).

The following options shall become part of this requirement:

OPTION 1 – Up to an Additional 315 New Low Floor Battery Electric Buses

The Authority reserves the right to exercise through Option 1 up to 315 additional new Battery Electric Buses in Authority defined increments as defined in Technical Specification VE21-054.

OPTION 1 will be included in the Basis of Award.

OPTION 2 – Up to 100 New Low Floor Battery Electric Buses Configured for Street Side Boarding

1. OPTION 2A – 35 BEBs configured for street side boarding
2. OPTION 2B – Up to 65 additional BEBs configured for Street Side boarding in Authority defined increments. Option 2B will only be exercised if 2A has been exercised.

The Authority reserves the right to exercise through one or more option(s) for furnishing through Option 2 up to 100 new Battery Electric Buses configured for street side boarding as defined in Technical Specification VE21-054 with configuration confirmed by two pilot buses.

If Option 2A is exercised at Notice to Proceed, the following major project schedule milestones shall apply:

Bus Numbers	Option 2 Delivery Timing
Option 2A Pilot Buses (Nos. 1 and 2)	4 th quarter calendar year 2023 and At least 6 months prior to line entry of Option 2 Production Buses Nos. 3 - 35
Option 2A Production Buses (Nos. 3 – 35)	4 th quarter calendar year 2024 Last bus delivered no later than December 31, 2024

OPTION 2 will be included in the Basis of Award.

OPTION 3 – Energy Storage System (ESS) Extended Warranty

MBTA reserves the right to exercise an option for the Contractor to provide an extended warranty on the ESS as specified in RFP Section 9.3 for an Authority defined quantity of buses.

OPTION 3 will be included in the Basis of Award.

OPTION 4 – Energy Storage System (ESS) Lease

MBTA reserves the right to exercise an option for the Contractor to provide a lease for the Energy Storage Systems (ESS) as specified in Technical Specification VE21-054 Section 81.4 for an Authority defined quantity of buses.

OPTION 4 will not be included in the Basis of Award.

OPTION 5 – Q'Straint Quantum Wheelchair Restraint System

MBTA reserves the right to exercise an option for the Contractor to provide Q'Straint Quantum wheelchair system as specified in Technical Specification VE21-054 section TS 81.5 and TS Attachment 4 Section E for an Authority defined quantity of buses.

OPTION 5 will be included in the Basis of Award.

OPTION 6 – License Plate Recognition System

MBTA reserves the right to exercise an option for the Contractor to provide a License Plate Reader system as specified in Technical Specification VE21-054 section TS 81.6 and TS Attachment 8 for an Authority defined quantity of buses.

OPTION 6 will be included in the Basis of Award.

OPTION 7 – Vinyl Exterior Color Scheme

MBTA reserves the right to exercise an option for the Contractor to provide a vinyl wrap exterior scheme in line with Technical Specification VE21-054 section TS 81.7 and TS Attachment 1 for an Authority defined quantity of buses.

OPTION 7 will be included in the Basis of Award.

OPTION 8 – Tire Pressure Monitoring System

MBTA reserves the right to exercise an option for the Contractor to provide a tire pressure monitoring system specified in Technical Specification VE21-054 section TS 81.8 for an Authority defined quantity of buses.

OPTION 8 will be included in the Basis of Award.

OPTION 9 – Passenger Compartment Antimicrobial Surface Treatment

MBTA reserves the right to exercise an option for the Contractor to provide surface treatment system(s) as specified in Technical Specification VE21-054 section TS 81.9 for an Authority defined quantity of buses.

OPTION 9 will be included in the Basis of Award.

OPTION 10 – Mobileye Advanced Driver Assistance System

MBTA reserves the right to exercise an option for the Contractor to provide Mobileye Advanced Driver Assistance System as specified in Technical Specification VE21-054 section TS 81.10 and TS Attachment 9 on an Authority defined quantity of buses.

OPTION 10 will be included in the Basis of Award.

OPTION 11 – Dual-sided LCD Passenger Information Screen

MBTA reserves the right to exercise an option for the Contractor to provide Dual-Sided LCD Passenger Information Screens as specified in Technical Specification VE21-054 section TS 81.11 and TS Attachment 10.

OPTION 11 will be included in the Basis of Award.

OPTION 12 –Geofencing System

MBTA reserves the right to exercise an option for the Contractor to provide, install, and fully integrate a Geofence system that will disable the auxiliary heater when in diesel mode, thereby providing for zero-emissions operation. Additionally, the Geofence System shall limit speeds in areas designated by the Authority. The Contractor shall provide a Geofence System that shall meet all requirements of Technical Specification VE21-054 section TS 81.12, on an Authority defined quantity of buses.

OPTION 12 will be included in the Basis of Award.

OPTION 13 –HVAC System with Heat Pump

MBTA reserves the right to exercise an option for the Contractor to provide, install, and fully integrate a HVAC system utilizing heat pump technology to reduce ESS consumption and extended BEB range. The proposed system shall meet all requirements of Technical Specification VE21-054 section TS 81.13 HVAC System with Heat Pump, and warranty provisions of RFP 1F-22.

OPTION 13 will be included in the Basis of Award.

The following additional requirements and terms apply to all Options noted above:

1. If executed, Option(s) will be incorporated to the fleet of forty-foot buses procured at the direction of the Authority.
2. Other cost factors, subject to the Authority's review and approval, may be considered in determining Option pricing.
3. All Option pricing remains subject to audit review and verification.
4. Regarding Option 1 and Option 2:
 - i. Upon request by the MBTA, the Contractor shall provide a Change Order Proposal containing the anticipated number of days from Option Vehicles Notice to Proceed to delivery of the first Option Vehicle. The Change Order Proposal shall be provided within two weeks of receipt of the Authority's request.

- ii. The maximum time permitted from Option Vehicles Notice to Proceed to the delivery of the first Option Vehicle shall be six (6) months.
- iii. Delivery rate of Option Vehicles shall be no less than four (4) Buses per week, and no more than six (6) buses per week. Actual delivery commencement shall be confirmed at Option execution.
- iv. The provisions of Section 7.6, liquidated damages, shall apply to the proposed Option Vehicle procurement if the Option Vehicles purchase is exercised by the Authority. Cost for any Option Vehicles will not be greater than the base proposal vehicle price plus escalation, as described above in Section 7.8.
- v. The provisions of Section 7.7, Vehicle Availability Pool, shall apply to the proposed Option Vehicle procurement if the Option Vehicles purchase is exercised by the Authority.
- vi. Cost for Option Vehicles will not be greater than the base proposal vehicle price plus escalation, as described in Section 7.8.
- vii. The right is further reserved to assign this option(s) to another transit agency, subject to the acceptance of the terms and conditions of the Contract and FTA requirements.
- viii. Option 1 and Option 2B may be exercised multiple times in Authority determined increments during the duration of the 5 year contract, with the total bus count not to exceed 460 vehicles

1.2. U.S. Domestic Provisions

This contract may be financed in part by means of a grant under the Urban Mass Transportation Act of 1964, as amended, and administered by the U.S. Department of Transportation, Federal Transit Administration (FTA), under a Capital Grant Contract between the Authority and the United States. The provisions of an FTA funded contract will apply.

All questions concerning the contract between the Authority and the Contractors, including all proposals thereof, shall be governed by and decided according to the law application to government procurement under Capital Grant Contracts. Refer to FTA Circular 4220.1F entitled "Third Party Contracting Guidelines" for details.

Under the FTA Guidelines, the following protest procedures are applicable:

1. The FTA may entertain a protest that alleges that a grantee failed to have or follow its written appeal/protest procedures.
2. A protest must be filled with the FTA no later than 5 days after the protester knows or has reason to know that the grantee has failed to render a final decision.
3. A protest to FTA must be filed in accordance with FTA Circular 4220.1F, as amended.

NOTE: The Authority reserves the right to proceed with the procurement, in spite of the pending protest as set forth in FTA Circular 4220.1F, if such action is deemed in the best interest of the Authority.

1.3. Bidder Requirement - Transit Vehicle Manufacturer (TVM)

Bidders must either be on the FTA's certified Transit Vehicle Manufacturers (TVMs) list, or must have submitted a DBE goal methodology to the FTA that has not been disapproved.

Pursuant to Title 49 Code of Federal Regulations, the Bidder (the TVM), as a condition of being authorized to respond to this solicitation, must certify that it has filed with the FTA an annual Disadvantaged Business Enterprise (DBE) participation goal. The Bidder shall attach its current FTA filing and approval status valid at the time of formal bid/proposal submission. The Authority will accept excerpts from said documents at time of bid submittal. Full documentation must be provided prior to award if said Bidder is determined to be the responsive and responsible Bidder for this procurement.

In accordance with 49 CFR Part 26, each Transit Vehicle Manufacturer (TVM) is required to establish and submit for FTA approval an annual overall percentage goal for Disadvantaged Business Enterprises (DBE). The TVM must submit its DBE goals to the FTA by August 1 of each year.

During the life of the Contract – from execution to final payment and/or completion of warranty, whichever occurs last – the Contractor must forward to MBTA a copy of its annual FTA DBE participation goal and the corresponding FTA approval or disapproval.

The Contractor must cooperate with MBTA and the Federal Government in reviewing the Contractor's activities relating to this provision.

MBTA strongly encourages the use of DBEs as prime Contractors, Subcontractors, and Suppliers in all its contracting opportunities.

1.4. Request for Proposals Timeline

RFP Release: Friday, April 22, 2022

Pre-Proposal Conference: Friday, May 6, 2022

Request for Clarification Deadline: Thursday, May 26, 2022

Final Addenda Deadline: Wednesday, June 1, 2022

Proposal Due Date: Friday, June 22, 2022, 2:00 pm/ EDT

The MBTA reserves the right to modify this timeline.

Requests for an extension of the Proposal Due Date must be submitted in writing, via email to vehicles@mbta.com with RFP 1F-22 in the subject line, to the attention of the Sourcing Executive **no later than ten (10) business days prior to the Due Date**. The MBTA reserves the right to determine whether to accept such requests. All Bidders will be notified through COMMBUYS of any extension granted.

1.5. MBTA Point of Contact and RFP Communications

MBTA's Procurement and Logistics Department will be the sole contact for prospective Bidders during the Proposal process. It will coordinate and direct all managerial, administrative, and technical processes and decisions.

RFP 1F-22 and all RFP Attachments, and Technical Specification TS VE21-054 and all TS Attachments will be posted on the Commonwealth of Massachusetts' COMMBUYS site, www.commbuys.com as Bid Number **BD-22-1206-MBTA-MBTA-74136**. At the MBTA's discretion, information regarding the proposal may be posted at other sites.

The MBTA's Contracting Officer and point of contact for this RFP is Aidan Flynn, Sourcing Executive, at vehicles@mbta.com. Each Bidder must designate one individual to function as a point of contact with MBTA during the pre-Proposal period to facilitate communications and receipt of RFP documents and addenda, if issued.

1.6. Evaluation Criteria

The Evaluation Criteria are:

1. Technical Proposal, including in relative order of importance and maximum points:
 - a. Technical Description of the Proposed Bus Design (46%)
 - b. Project Implementation Approach (15%)
 - c. Optional Work Scope (15%)
 - d. Project Schedule (8%)
 - e. Quality Management Plan (8%)
 - f. Qualifications of Firm and Staff (8%)
2. Total Proposal Price, including Options 1 through- 3 and 5 through 13; **NOT to include Option 4**

Award will be made to the Bidder who furnishes the Proposal, which in the opinion of the MBTA, provides the best value, meaning it is offered at a fair and reasonable price and it offers services and equipment best suited for the MBTA's requirements from a contractual and technical standpoint.

1.7. Selection and Competitive Negotiation Process

Proposals will be evaluated and awarded on a best value, competitive negotiated basis as described below. MBTA may request Bidder clarification of any minor informalities, irregularities, and apparent clerical mistakes. Any changes to the Response shall be evaluated at MBTA's sole discretion.

1. **Confidentiality:** All information received from each Bidder will be treated as confidential information and will not be distributed prior to Contract execution, other than for the purpose of evaluation of the Proposal. Bidders are advised that all Proposals received are subject to the Massachusetts Public Records Law, G.L.c.66.
2. **Technical Response Responsiveness Review:** MBTA reserves the right, in its sole discretion, to determine if a Proposal is responsive and the Bidder is responsible. In determining whether a Bidder has the ability to perform successfully under the terms and conditions of the proposed procurement, MBTA will consider such matters as the Bidder's integrity, compliance with public policy (e.g., EEO record, debarment status, etc.), record of past performance, and financial and technical resources.

Upon receipt, Technical Responses will be reviewed for responsiveness to the RFP requirements, including (i) deficiencies and minor informalities, irregularities, and apparent clerical mistakes which are unrelated to the substantive content of the Response; (ii) conformance to the RFP instructions regarding organization and format; and (iii) the responsiveness of the Bidder to the requirements set forth in this RFP.

Those Technical Responses not responsive to this RFP may, at MBTA's sole discretion, be excluded from further consideration and the Bidder will be so advised.

3. **Technical Proposal Evaluation:** Each Technical Evaluation Criterion will be evaluated by considering all information included in the Technical Proposal related to the criterion. This evaluation may, at MBTA's sole discretion, include requests for additional written information or clarification from any Bidder to assist in evaluation, including oral interviews, and references.

MBTA may, at its own expense and upon reasonable notice, visit and inspect current operations of the Bidder and/or any proposed subcontractors, including the premises, facilities, equipment, personnel and other resources, and carry out related appraisals as part of the Response evaluation.

Technical Proposals will be ranked, and those that most closely align with MBTA's Evaluation Criteria will advance to the Price Proposal Evaluation. MBTA, in its sole discretion, reserves the right to limit the number of Proposals that are advanced to a Price Proposal Evaluation to those that MBTA deems most responsive to MBTA's requirements.

4. **Price Proposal Responsiveness Review:** Price Proposals will be reviewed for responsiveness to RFP requirements, including (i) deficiencies and minor informalities, irregularities, and apparent clerical mistakes which are unrelated to the substantive content of the Response; (ii) conformance to the RFP instructions regarding organization and format; and (iii) the responsiveness of the Bidder to the requirements set forth in this RFP.

Those Price Proposals not responsive to this RFP may, at MBTA's sole discretion, be excluded from further consideration and the Bidder will be so advised.

5. **Price Proposal Evaluation:** This evaluation may, at MBTA's sole discretion, include requests for additional written information or clarification from any Bidder to assist in evaluation.
6. **Competitive Negotiation:** A decision is made to:
 - a. Move to Contract. MBTA may elect to award a Contract without negotiation.
 - b. Reject all Proposals in the best interest of MBTA.
 - c. Negotiate with Bidders within the competitive range and with compliant Proposals. The competitive range includes all Proposals which have a reasonable chance of being selected for award. If negotiation is used:
 - i. Each Bidder is formally notified in writing either that its Proposal is compliant and within the competitive range and when negotiations with that Bidder will commence, or that its Proposal is not compliant or not within the competitive range, and is excluded from further consideration.
 - ii. The Contracting Officer determines whether negotiations will be conducted by written correspondence or by oral discussion. All meetings are held individually under the direction of the Contracting Officer.
 - iii. As part of negotiations, Bidders within the competitive range may modify their original Proposal and submit a revised Proposal or Best and Final Offer (BAFO), as directed by MBTA, by a common due date.
 - iv. Competitive Negotiation steps are repeated as required.
7. **Best Value Determination:** MBTA will, in its sole discretion, determine which Proposal or Proposals

represents the “best value” based on an analysis of the results of the Technical Proposal Evaluation and the Price Proposal Evaluation.

1.8. Pre-Proposal Procedures

1. **Pre-Proposal Conference.** A virtual conference will be held on Friday, May 6, 2022, at 10:00 a.m. EDT. Attendees will need to preregister via e-mail with Aidan Flynn, Sourcing Executive at vehicles@mbta.com to arrange access to the conference.
2. **Requests for Clarification (RFCs).** RFCs should be submitted using RFP Attachment 1: Request for Clarification and sent by email to vehicles@mbta.com. The email subject line must be “RFP No. 1F-22 RFC” and the RFC document must be attached.
 - a. Only one question/clarification may be submitted per page on the RFC form.
 - b. All RFCs must be submitted by the date listed in Section 1.4.
 - c. MBTA has no obligation to respond to RFCs.
 - d. The Authority will not review "Requests for Approved Equal" for specified components or systems during the RFC process. All approved equal proposals will be reviewed during preliminary design phase of the procurement with the selected Contractor.
3. **Contract Document Revisions.** If MBTA determines an issue or Request for Clarification warrants a response or a change to the Contract Documents, it will issue an Addendum. Any interpretation or revision to Contract Documents will be made only by an Addendum.
 - a. Addenda will be numbered sequentially and made available to Bidders on COMMBUYS.
 - b. The Bidder must acknowledge receipt of each Addendum by writing the Addendum number and date in the space provided on the Proposal Form and submitting the executed Form with their Proposal.
 - c. No officer, agent, or employee of the MBTA is authorized to amend any provision contained in this RFP, including the specifications, unless such amendment is issued as an Addendum.
 - d. Oral explanations or instructions are not binding.
 - e. MBTA reserves the right to revise or amend the Contract Documents in its best interests.

1.9. Preparation and Submittal of Proposals

A. General. Proposals must be submitted as follows:

The Bidder must submit its Proposal, in accordance with all instructions and guidelines, to the Contracting Officer, Massachusetts Bay Transportation Authority, 10 Park Plaza, Suite 2810,

Boston, Massachusetts 02116 **no later than 2:00 p.m. EDT, June 22, 2022.** In addition, an electronic copy of the Proposal must be submitted on COMMBUYS.

- a. The Bidder bears full responsibility for ensuring proper delivery of all Proposal documents.
 - b. The Proposal will be valid for 180 business days from the Proposal due date. If MBTA requires additional time for review, MBTA reserves the right to extend the validity of the Proposal in increments of sixty (60) business days. Prices submitted remain in effect as originally submitted.
2. The Technical Response and the Price Proposal must be contained in separate sealed submittals, together submitted as an entire package endorsed as “RFP No. 1F-22 - Forty-Foot Low Floor Battery Electric Buses.”
 - a. The Technical Response must be submitted in the quantities described in Section 12.2, sealed, and clearly marked “RFP No. 1F-22: Technical Response –Forty-Foot Low Floor Battery Electric Buses.”
 - b. A single copy of the Price Proposal must be submitted, sealed, and clearly marked “RFP No. 1F-22: Price Proposal –Forty-Foot Low Floor Battery Electric Buses.”
3. Electronic versions of both the Technical Response, including all components, and Price Proposal must be submitted on COMMBUYS as separate, clearly labeled files. Electronic copies of the Price Proposal should be provided both in PDF and Excel.
4. It is the Bidder’s responsibility to ensure its Proposal is complete and correctly submitted.
5. As described in Section 12.2, one (1) original copy of resolution, by-law, or Power-of-Attorney authorizing an Officer or Agent to sign on behalf of the Bidder must accompany the Proposal and any Contract which may ensue. All Proposals, Technical and Price, must be signed correctly with ink in the proper place provided. See Section 12 for additional requirements.

B. Technical Response.

1. Each copy of the Bidder’s Technical Response must be inserted into a three-ring binder and organized as described in Section 12. The Evaluation Criteria for the Technical Proposal and the weighted scoring assigned to each area are described in Section 1.6.
2. Contractual Information. The Bidder must utilize and fully complete all Proposal forms included in this RFP and listed in Section 12, specifically RFP Attachments 1, 2, 3,4, and 5.
3. The Bidder must meet all minimum requirements of the Contract Documents, including the components of Technical Response. The Bidder may, however, exceed the minimum requirements and may submit additional information describing its Proposal, within defined page limits.

C. Price Proposal.

1. **Price Proposal.** Using RFP Attachment 5: Price Proposal as specified in Section 13, the Bidder must specify a unit price in US dollars for each item for which a quantity is given.

- a. In case of a discrepancy between the unit prices written in words and unit prices written in figures, the written words will govern.
- b. The prices for any item, proposed and contracted for, unless otherwise noted or specified, must include full compensation for all materials, equipment tools, labor, and incidental work necessary to complete the items to the satisfaction of the MBTA.
- c. All prices must be net, not subject to discount, and must include all royalties and costs arising from patents, trademarks, and copyrights involved in any way with the work.
- d. The Price Proposal must include the cost of all applicable taxes, customs, duties, freight/transportation, and insurance for Delivery of Vehicles and all End Products.
- e. The Price Proposal must be based upon the Schedule of Partial Payments described in Section 7.5.
- f. The Bidder's submittal must be prepared as if it as Best and Final Offer. MBTA may award this Contract without negotiation if it determines it has received the best value Proposal in accordance with the Contract Documents.

1.10. Pre-Contractual Expenses

- A. MBTA will not be liable for any pre-contractual expense incurred by the Bidder, including but not limited to:
 - 1. Preparing its Proposal in response to this RFP;
 - 2. Attending the Pre-Proposal Conference;
 - 3. Submitting its Proposal to MBTA;
 - 4. Discussing or negotiating with MBTA any matter related to this Proposal; or
 - 5. Any other expenses incurred by the Bidder prior to any date of Award.
- B. The Proposal must not include any such expense as part of its Proposal price.

1.11. Bidder's Material Qualification

- A. It is the responsibility of the selected Bidder (Contractor) to furnish complete End Products, materials and specialties of the type, design, and performance to result in integrated, operating End Product units and/or systems in accordance with the Technical Specifications.
- B. The selected Contractor is fully responsible for the satisfactory delivery and operation of all equipment and materials covered by the contract Documents, whether manufactured by the Contractor or manufactured by a Subcontractor.
- C. The selected contractor must furnish evidence, if required by the Engineer, that equipment of comparable rating (or higher) to that which the Contractor proposed to furnish, has been in satisfactory operation in similar applications. This provision will not apply to materials supplied by MBTA.

1.12. Proposal Opening

There will not be a public opening of Technical Responses or Price Proposals.

1.13. Late Submissions, Modifications and Withdrawals of Offers

COMMBUYS will not accept proposals after the due date, and any offer received at the Procurement and Logistics Department after the exact time specified for receipt as designated in Section 1.4 (Due Date) will not be considered.

Any modification of an offer, except a modification for “best and final” offer, is subject to the same conditions stated in Section 1.14.

Notwithstanding the above, a late modification of any otherwise successful offer that makes its terms more favorable to the Authority will be considered at any time it is received and may be accepted.

Proposals may be withdrawn by written notice to the Authority, or in person by the Bidder or an authorized representative of the Bidder at any time before award.

1.14. Rejection of Proposals

- A. Any Proposal not in conformity with the requirements of MBTA as described in the Contract Documents may be rejected. MBTA reserves the right to reject any or all Proposals.
- B. Proposals which fail to meet the requirements of the RFP submittal, are incomplete, include modifications to the RFP specifications, terms and conditions, or which change the intent of this RFP are prohibited and may disqualify a Proposal.
- C. More than one Proposal from the same Bidder, whether the same or different names appear on the signature page, will not be considered.
- D. MBTA reserves the right to waive minor irregularities, errors, or technicalities in Proposals.

1.15. MBTA Reservation of Rights

In connection with this RFP, the MBTA reserves to itself all rights (which rights shall be exercisable by the MBTA in its sole discretion) available to it under applicable laws, including without limitation, with or without cause and with or without notice, the right to:

- 1. Modify the RFP process in its sole discretion to address applicable law and/or the best interests of the MBTA.
- 2. Develop the work to be performed under the Contract in any manner that it, in its sole discretion, deems necessary. If the MBTA is unable to negotiate a Contract to its satisfaction with a Bidder, it may negotiate with the Bidder with the next highest ranked proposal, terminate this RFP and pursue other developments or solicitations relating to the work to be performed under the Contract, or exercise such other rights under the provisions of Massachusetts law as it deems appropriate.
- 3. Cancel this RFP in whole or in part at any time prior to the execution by the MBTA of a Contract, without incurring any cost, obligations, or liabilities.
- 4. Issue a new Request for Proposals after withdrawal of this RFP.
- 5. Not select any Bidder or cancel this procurement.
- 6. Reject any and all submittals and Responses received at any time.
- 7. Modify all dates set or projected in this RFP.
- 8. Suspend and terminate Contract negotiations at any time, and engage in negotiations with the Bidder with the next highest ranked proposal if negotiations are unsuccessful with the apparent successful Bidder.
- 9. Issue addenda, supplements, and modifications to this RFP.
- 10. Require confirmation or clarification of information furnished by a Bidder, require revised or additional information from a Bidder concerning its Response, and require additional information to clarify the Response submitted in response to this RFP.

11. Conduct presentations with Bidders, identify a short-list of Bidders, and conduct on-site visits at Bidder facilities.
12. Declare a competitive range, conduct discussions, and request Response revisions and best and final offers.
13. Seek or obtain data from any source that has the potential to improve the understanding and evaluation of the responses to this RFP.
14. Add or delete Bidder responsibilities from the information contained in this RFP.
15. Waive non-material deficiencies in a Response, accept and review a non-conforming Response, or permit clarifications, revisions, or supplements to a Response.
16. Negotiate with a Bidder without being bound by any provision in its Response, or choose to award and/or execute the Contract without negotiations.
17. Disqualify any Bidder that changes its submittal without MBTA approval.
18. Disqualify any Bidder under this RFP for violating any rules or requirements of the procurement set forth in this RFP or in any other communication from MBTA.
19. Delay issuance of notice to proceed after execution of the Contract.
20. Conduct all or any portion of the Scope of Work itself.
21. Exercise any other right reserved or afforded to the MBTA under this RFP.

This RFP does not commit the MBTA to enter into a Contract or proceed with the procurement described herein. The MBTA assumes no obligations, responsibilities, and liabilities, fiscal or otherwise, to reimburse all or part of the costs incurred or alleged to have been incurred by parties considering a response to and/or responding to this RFP.

In no event shall the MBTA be bound by, or liable for, any obligations with respect to the work to be performed under the Contract until such time (if at all) as the Contract, in form and substance satisfactory to the MBTA, has been executed and authorized by the MBTA and, then, only to the extent set forth therein; provided, however, that the foregoing disclaimer in this sentence shall not apply to the obligations of the MBTA to the Bidders during the procurement process, which obligations are expressly set forth in this RFP. In submitting a Response to the RFP, each Bidder is specifically acknowledging these disclaimers.

1.16. Appropriation Contingency

MBTA intends to seek federal funds for this Contract. If MBTA fails to attain federal assistance at any time, this Contract may not be awarded or may be terminated.

1.17. Appeal/Protest Procedures

Appeals/protests relative to this procurement will be reviewed and adjudicated in accordance with the MBTA's Appeals/Protest Procedure - Goods & Services. A copy of this procedure is available at www.mbtta.com. In the event that this procurement is federally funded with financial assistance from the Federal Transit Administration (FTA), interested parties may elect to issue a protest to the FTA if the interested party believes that the MBTA failed to follow the protest procedures identified above after exhausting MBTA's appeals and protest procedure. These parties must exhaust all appeals and protest procedures with the MBTA first. Such protests to the FTA must be filed in accordance with FTA Circular 4220.1F, Chapter VII.

1.18. Rules of Contact

Starting on the date the RFP is issued and ending on the earliest of (a) the award and execution of the Contract, (b) rejection of all Responses by the MBTA, or (c) cancellation of the procurement, the following rules of contact shall apply. These rules are designed to promote a fair and unbiased procurement process. Contact includes face-to-face, telephone, email, or formal written communication.

The specific rules of contact are as follows:

1. No Bidder, or any of its team members, may communicate with another Bidder or its team members with regard to this RFP or either team's Response, except that subcontractors that are shared between two or more Bidder teams may communicate with their respective team members so long as those Bidders establish a protocol to ensure that the subcontractor will not act as a conduit of information between the teams. This prohibition does not apply to public discussions regarding the RFP at any MBTA sponsored Bidders' conferences.
2. No Bidder or representative thereof shall have any ex parte communications regarding the RFP, the Contract, or the procurement described herein with any member of the MBTA's Board of Directors, the Massachusetts Department of Transportation ("MassDOT") Board of Directors, or with any MassDOT or MBTA staff, advisors, contractors, or consultants involved with the procurement, except for communications expressly permitted by the RFP or except as approved in advance at the MBTA's Point of Contact's sole discretion. The foregoing restriction shall not, however, preclude or restrict communications with regard to matters unrelated to the RFP, Contract, or procurement or from participation in public meetings of the MBTA or MassDOT Boards of Directors or any public or Bidder workshop related to this RFP.
3. The Bidders shall not contact employees, representatives, and employees or other representatives of Jacobs Engineering Group regarding this RFP, the Contract, or the procurement.
4. Any communications determined by the MBTA, in its sole discretion, to be improper may result in disqualification.
5. Any official information regarding this RFP will be disseminated from the MBTA's Point of Contact via COMMBUYS.
6. The MBTA will not be responsible for any oral exchange or any other information or exchange that occurs outside the official process specified herein.

2. ABBREVIATIONS AND DEFINITIONS

2.1. Abbreviations

Wherever the following abbreviations are used in these Contract Documents or on the Plans, they are to be construed the same as the respective expressions represented;

AA	Aluminum Association
ADA	American with Disabilities Act
AFI	Air Filter Institute
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute

ANSI	American National Standards Institute (formerly ASA and USASI)
APA	American Plywood Association (formerly Douglas Fir Plywood Association)
API	American Petroleum Institute
APTA	American Public Transit Association
AREA	American Railway Engineering Association (formerly ARA)
ASA	American Standards Association
ASHRAE	American Society of Heating, Refrigeration and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society of Testing and Materials
ATA	Air Transportation Association of America
AWG	American Wire Gauge
AWPA	American Wood Preserving Association
AWS	American Welding Society
BLS	Bureau of Labor Statistics
CFR	Code of Federal Regulations
DOT	U.S. Department of Transportation
DPU	Department of Public Utilities (formerly DTE), Commonwealth of Massachusetts
EC	Emissions Control
ECD	Emissions Control Diesel
EIA	Electronic Industries Association
FAA	Federal Aviation Administration
FAR	Federal Acquisition Regulations
FCC	Federal Communications Commission
FDA	Federal Drug Administration of the United States Department of Health and Human Services
FMVSS	Federal Motor Vehicle Safety Standards
FPR	Federal Procurement Regulations
FRA	Federal Railroad Administration
FTA	Federal Transportation Administration (formerly UMTA)
HSLA	High Strength Low Alloy
ICC	Interstate Commerce Commission
ICEA	Insulated Cable Engineers Association
IEC	International Electrotechnical Committee
IEEE	Institute of Electrical and Electronic Engineers
IES	Illuminating Engineering Society

IPCEA	Insulated Power Cable Engineers Association
IPS	Iron Pipe Size
ISO	International Standards Organization
JIC	Joint Industrial Council
LAHT	Low Alloy High Tensile Strength (Steel)
MBTA	Massachusetts Bay Transportation Authority
MIL	Military Specification
NBS	National Bureau of Standards
NCA	Noise Criterion, Alternate
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
OEM	Original Equipment Manufacturer
PMCG	Proposal Modification and Clarification Guidelines
RFP	Request for Proposal
SAE	Society of Automotive Engineers
SDO	Supplier Diversity Office (formerly SOMWBA)
SIC	Standard Industrial Code, U.S. Department of Labor
STURAA	Surface Transportation and Uniform Relocation Assistance Act
TSC	Transportation Systems Center, DOT
VIC	International Union of Railways
UL	Underwriter's Laboratories, Inc.
UMTA	Urban Mass Transportation Administration, United States Department of Transportation (now FTA)
USPHS	United States Public Health Service of the United States Department of Health and Human Services

Note: Any Abbreviation or Acronym standard or code referenced shall act in conjunction with Technical Specification VE21-054, Section TS 2.

2.2. Definitions

Wherever the following terms are used in the Specifications or on the Plans, the intent and meaning shall be interpreted as follows;

1. Whenever in the Specifications or on the Plans the words "acceptable", "accepted", "approval", "approved", "authorized", "condemned", "considered-necessary", "deemed necessary", "designated", "determined", "directed", "disapproved", "established", "given", "indicated",

- "insufficient", "ordered", "permitted", "rejected", "required", "reserved", "satisfactory", "unacceptable", "unsatisfactory", or words of like import are used, it shall be understood as if such words were followed by the words in writing, "by the Engineer" or "to the Engineer", unless otherwise specifically stated.
2. Wherever the word "indicated" is used, it shall be understood to mean "as described in the Specifications", "as shown on the contract Plans", or "as required by the other Contract Documents."
 3. Wherever the words "provided", "supplied", or "installed" are used in the Specifications in reference to work to be performed by the Contractor, it shall be understood to mean "furnished and delivered completed".

Note: Any definition reference herein shall act in conjunction with Technical Specification VE21-054, Section TS 2.

ACCEPTANCE. Reviewed for conformity to Specification and accepted, in writing, by the Authority.

ACCEPTED EQUAL or EQUAL. Whenever the words "accepted equal" or "equal" are used in connection with material or equipment in these Contract Documents including the Specifications, the proposed alternative shall be functionally compatible with and of equal or better quality than the item it proposed to replace. The Engineer's decision as to whether any material or equipment proposed is equal to that specified shall be binding on both the Authority and Contractor.

ADDENDUM/(ADDENDA). Written interpretation(s) or revision(s) of any of the Contract Documents sent to Offerors prior to submittal of proposals.

ADVERTISEMENT. The invitation to offer a bid for work to be performed or materials to be furnished.

ALTERATION. A change or substitution in the form, character, or detail of the work done or to be done within the original scope of the Contract.

AS-BUILT. Drawings and documentation of how the bus was actually constructed. Not to be confused with design or concept drawings and documents.

AUTHORITY, or MBTA. Massachusetts Bay Transportation Authority, created by Chapter 563, Section 18 of the Acts of 1964 of the Commonwealth of Massachusetts, the party of the First Part to the Contract.

AUTHORIZED SIGNEE. The person who is executing the Contract on behalf on the Offeror/Contractor and who is authorized to bind the Offeror/Contractor.

AVAILABILITY (VEHICLE). For the purposes of this RFP, an Available vehicle shall be defined per the following criteria:

- a. Available for service shall be defined as a bus that registers a 90% of maximum allowable Energy Storage System (ESS) State of Charge (SoC) as recorded on the Authority's CMS (Charge Management System)
- b. Available for service also includes any bus that is active in service or on the road

- c. Available for service also includes any bus in use for training, testing, and any bus out of service for scheduled preventative maintenance
- d. Warrantable vehicle, component, and/or software/firmware failure, which result in a bus being deemed out of service is an unavailable bus

BASE LINE DESIGN. The design of the vehicle or any of its components, apparatus, systems, subsystems, or materials, which have received drawing acceptance and First Article acceptance by the Authority.

BASIC or MANUFACTURER'S STANDARD. Shall mean the component or part standard to be acceptable as part of the line-produced vehicle of the Contractor.

BENCHMARKING. The recalculation of compensation adjustments on account of changes in labor and/or material cost utilizing indices as set forth under the provisions of the RFP subsequent to the establishment of final published indices during the performance of this Contract or subsequent to the month(s) for which the option for additional cars is executed shall not be allowed.

BID. The Bidder's submission, in response to the Authority's Invitation for Bids, including the Contract Documents with Specifications, to be submitted in the prescribed manner, properly signed and certified using the forms provided by the Authority as required and all data to be supplied by the Bidder to be in conformance with said Documents

BIDDER(S). Any individual, firm, partnership, corporation or joint venture submitting a Bid on the Form for Bid provided, for the work contemplated, acting directly or through a duly authorized representative

BID FORM.

- a. The approved form on which the Authority requires Bids to be prepared and submitted for the work, and which is part of the Bid heretofore defined.
- b. When executed by the Bidder, the Bid becomes the Contractor's written offer to perform the work and furnish and deliver the equipment/materials at the prices quoted.

BUS or MOTOR BUS. A complete vehicle, that conforms to the Technical Specifications and is ready to operate.

BUYER. The Massachusetts Bay Transportation Authority.

CHANGE ORDER.

- a. A Contract Document executed by the Authority and issued to the Contractor amending the Contract Provisions and/or Specifications. The change order establishes the basis for payment and time adjustments, if any, of the work affected by the changes.
- b. The Document becomes a part of the Contract when executed by the Contractor and the Massachusetts Bay Transportation Authority. All terms and conditions of the Contract

Documents including the Specification remain as previously stated unless so noted in the text of the change order.

CHIEF PROCUREMENT OFFICER. Chief Procurement Officer for the Massachusetts Bay Transportation Authority, an official designated by the Authority to administer Contracts and make related determinations and findings such as executing Contracts and Change Orders.

COMMONWEALTH. The Commonwealth of Massachusetts.

CONTRACT SKETCHES. An initial set of sketches showing the general car layout and arrangement provided by the Authority with the Specification.

CONDITIONAL ACCEPTANCE. The acceptance of the vehicles by the Authority at the designated delivery point after discrepancies listed on the Receiving Report have been sufficiently corrected to enable the vehicles to be certified for passenger service prior to final acceptance, per Section 3.30. The vehicle(s) remains conditionally accepted until it is totally responsive to the Specification requirements and corrective action(s) implemented to the Authority's satisfaction.

CONSULTANT OR CONSULTING ENGINEER. The engineering design consultant (firm) retained by the Authority to assist the Authority's Engineer in the preparation of Plans and Specifications, proposal evaluation, review of Contractor-furnished drawings and documents, to furnish advice and assistance during the course of the procurement, and to furnish in-plant inspection services.

CONTRACT. The written agreement executed between the Authority, Party of the First Part, and the Contractor, Party of the Second Part, setting forth the obligations of the Parties thereunder, the performance of the procurement as indicated in the Proposal Documents and all authorized changes to this Contract issued subsequent to the execution of the Contract.

CONTRACT BOND. The Performance Bond executed by the Contractor and his surety or sureties, guaranteeing performance of the Procurement in accordance with the Contract and all subsequent agreements.

CONTRACT DOCUMENTS. The Contract Documents include the following: RFP, Contract Provisions, Technical Specifications, Concept Drawings, and Addenda; Contractor's Proposal, including any technical information submitted thereunder; Performance Guarantee; all applicable Contractual Affidavits and Certifications; and other pertinent document(s) as required - all of which constitute one instrument. Any Change Order that is subsequently executed shall make reference to and become part of the Contract.

CONTRACT TIME. The number of days allowed for completion of the Contract.

CONTRACTOR. The Prime Contractor solely responsible to the Authority for the quality and proper functioning of the vehicle(s) and all components; the person or persons, firm, partnership, corporation, or combination thereof which has entered into this Contract with the Authority to supply the vehicle(s)/services.

CONTRACTOR'S DRAWINGS. Items such as general drawings, detail drawings, graphs, diagrams, sketches, calculations, and catalog cuts which are prepared by the Contractor to detail its work.

CONTRACTOR'S LOCAL COMMISSIONING FACILITY. Contractor will provide a designated facility within the MBTA's local service area for the commissioning/testing, DPU inspection and, as applicable, retrofit and/or warranty work for all buses to be procured under this Contract.

DAYS. Unless otherwise designated, days as used in the Contract Documents will be understood to mean calendar days.

DAY(S) WORKED. Those calendar days during which regular business is conducted, excluding Saturdays and Sundays, and all locally observed Federal, State, and Municipal holidays.

DEFECT. Patent or latent malfunction or failure in manufacture, design, or operation of any component or subsystem that causes a vehicle to cease operating or causes it to operate in a degraded mode.

DELIVERY. Receipt at the Authority of the vehicles in a sound, whole, ready to run condition. The Contractor shall complete and deliver all equipment and materials defined in the Contract Documents, to the Massachusetts Bay Transportation Authority, designated delivery point.

DELIVERY POINT. The point of delivery shall be at the approved Local Bus Commissioning Site.

DESIGN LIFE. Shall mean the same or longer than "service life"

END PRODUCT.

- a. The Contract item(s) to be purchased by the Authority in accordance with the Contract Documents.
- b. End Product(s) includes, but it not limited to, drawings, specifications, instructions, books, education programs, spare parts and/or services.

ENGINEER. For this procurement the "Engineer" shall be embodied in the Authority's Technical Project Manager or by his designee.

EQUAL. Whenever the words "equal" or "accepted" are used in connection with make or quality of material or equipment in these Specifications, the Engineer's decision as to whether any material or equipment proposed is equal to that specified shall be binding on both the Contractor and the Authority.

FAIL SAFE.

- a. A characteristic of a system which ensures that any malfunction affecting safety shall cause the system to revert to a state that is known to be safe.
- b. To be considered "fail safe", the systems shall also automatically furnish an acceptable indication in accordance with the Specification that a failure has occurred.

FAILURE. In relation to Reliability Test, it is an improper condition requiring the vehicle to be withheld from or removed from scheduled service for corrective action.

FINAL ACCEPTANCE OF VEHICLES. When all corrective actions and retrofit (if any) have been fully completed, and the vehicle is considered by the Authority to be fully compliant with the Contract.

FINAL ASSEMBLY. Installation and interconnections of propulsion control equipment, propulsion cooling equipment, brake equipment, energy sources for auxiliaries and controls, heating and air conditioning, communications equipment, motors, wheels and axles, suspensions and frames; the inspection and verification of all installation and interconnection work; and the testing in plant of the stationary product to verify all functions.

FIRST ARTICLE INSPECTION (FAI). The physical examination, acceptance, and commercial testing of, and acceptance by the Authority of an initial part, major assembly, subassembly, system, subsystem, apparatus, or material, manufactured or assembled by either the Contractor or Subcontractors. Although the exercise of First Article Inspection shall be at the Authority's option, the Contractor shall assume that the Authority shall subject all of the above to first article examination and acceptance.

FLEET DEFECT(S). As used in these Specifications, is defined as the failure of identical items by specific location and function on the vehicle, covered by the Warranty, and occurring in the warranty period, in a proportion of the vehicles delivered under this Contract.

GUARANTEE PERIOD. For the purposes of this RFP, *Guarantee Period* shall mean the same as warranty period.

INDICATED. As used in these Specifications, "Indicated" shall be understood to mean, "as shown on the Contract Drawings, as described in the Specifications, or as required by other Contract Documents.

INSPECTOR. Shall mean the representative(s) of the Massachusetts Bay Transportation Authority acting as a quality assurance representative assigned to the inspection of Materials and Workmanship under the Contract Documents.

INTERFACE. The points where two or more physical subsystems or systems meet to transfer energy or information.

LEAD BUS. See Pilot Bus.

MANUFACTURER. Shall mean the original manufacturer supplying materials, equipment, or apparatus for installation on the vehicles.

MATERIAL (SUPPLIES). Any substances specified for use in the construction and/or manufacture of the Procurement End Products(s), or to be furnished to the Authority as loose items as part of the Procurement.

NOTICE. Shall mean a written notice.

OFFEROR. See Bidder.

ORIGINAL EQUIPMENT MANUFACTURER(S). The original manufacturer of the Vehicles and all principal subcomponents and/or specific subsystems.

OWNER OR PURCHASER. The Authority, as defined herein.

PARTY, PARTIES. Entity(ies) entering into the agreement.

PILOT BUS(ES). The first complete bus(es) manufactured by the Contractor to establish the base line for production configuration. Pilot Bus(es) shall not be used to complete Altoona or Shaker Table testing.

PLANS. The Authority's drawings (if included) as prepared by the Engineer, which supplement the Specifications and are a part of the Contract Documents; also called Contract Drawings.

PROCUREMENT (WORK).

- a. The furnishing of all equipment, items, materials, parts, systems, data, design, services, incidentals, labor, and management and performance of the Contractual requirements defined in the Contract Documents, including changes thereto, in order to produce and deliver the purchased End Product(s).
- b. As used herein, the terms Work and Procurement are synonymous.

PRODUCTION VEHICLES. All vehicles delivered during the contract with the exception of Prototype and/or Pilot Vehicles, as applicable to the work scope.

PROGRAM. The total effort undertaken by the Authority of which the End Products may constitute a whole or a part.

PROJECT MANAGER FOR ADMINISTRATION. The person designated by the Authority as its representative in matters pertaining to administrative aspects of the Contract such as pricing, payments, liquidated damages, change orders, etc.

PROJECT MANAGER FOR ENGINEERING. See Technical Project Manager.

PROOF (used as a suffix). Apparatus is designated as splash proof, dust proof, etc., when so constructed, protected, or treated that its successful operation is not interfered with when subject to the specified material or condition.

PROPOSAL. (SEE BID).

PROPOSAL FORM. (SEE BID FORM)

QUALIFY. As used in these Specifications shall be the determination that an assembly, sub-assembly, or any part thereof is satisfactory for continued service under the Contractor's warranty, or that the time is suitable for repair or overhaul to restore it to warrantable service, or that the item must be replaced with a new (or warrantable rebuilt) part.

REFERENCE. Where reference is made in the Contract Documents to publications or standards issued by associations or societies, the intent shall be to specify the current edition of such publications or standards in effect on the date of the Contract Advertisement, notwithstanding any reference to a particular date.

RELATED DEFECT - Damage inflicted on any component or subsystem as a direct result of a defect.

RELIABILITY. The probability of performing a specified function, without failure and within design parameters, for the period of time intended under actual operating conditions.

REPRESENTATIVE. Shall mean any duly authorized agent of the Authority or the Contractor.

RETROFIT. A fleet wide modification performed after Conditional Acceptance.

SECTION. Section refers to the indicated Section of the Contract Documents and Specifications plus all subsections thereof (unless the context indicates otherwise).

SERVICE, as in **SERVICE USE, SERVICE BRAKING.** The operation of the vehicles under normal conditions with passengers.

SERVICE PROVEN. The historical success of that equipment operating for at least one year under similar conditions on other transit vehicles and has achieved a MMBF (Mean Miles Between Failures) consistent with the Authority's requirements.

SHOP DRAWINGS. Items, such as drawings, calculations, and catalog cuts, which are prepared by the Contractor to supplement or detail Contract Drawings or Specifications, or are prepared at Contractor's option to detail his work; or which the Contractor is required to submit to the Engineer for review, information, or record, including electrical schematics and wiring diagrams, fabrication, erection, layout, assembly, installation, tests, maintenance, and repair drawings.

STANDARD EQUIPMENT PROCUREMENT SPECIFICATIONS. This document of General Requirements and Covenants for Equipment Procurement.

STATE. The Commonwealth of Massachusetts.

STOCKPILE. A gradual accumulation of a reserve. For purposes of this Contract, no stockpiling of unaccepted vehicles on the Authority's property will be allowed.

SUBCONTRACTOR. An individual, firm, partnership, corporation or joint venture to whom the Contractor sublets any services, part, subsystem, component, or hardware of the Contract.

SUPPLIER (VENDOR). The persons, firm, partnership or corporations who furnish materials/services to the Contractor. Supplier furnished materials/services shall comply with all the contract requirements.

NOTE: In the course of this Contract, the Authority may interchangeably use the words subcontractor, supplier, sub-supplier, vendor, as synonyms, all the aforementioned being under contract to the Contractor.

SURETY. The corporate body bound with and for the Contractor for the full and complete performance of the Contract and for the payment of all legal debts pertaining to the work, and who executed the Performance Bond(s) furnished by the Contractor.

SYSTEM INTEGRATION. A process that iteratively combines implemented system elements and subsystems to form a complete system configuration that functionally works together as expected and does not create unsafe conditions.

TECHNICAL PROJECT MANAGER (ENGINEER). The person designated by the Authority to be its liaison with the Contractor on all technical matters pertaining to work. The Technical Project Manager for Engineering shall be empowered to act on behalf of the Authority in such matters as acceptance of

Contractor's drawings, test procedures, first article acceptance, and valid acceptance. Said person shall be designated in writing on official Massachusetts Bay Transportation letterhead.

TECHNICAL SPECIFICATIONS.

- a. Specifications pertaining generally to the method and manner of performing the work and/or the qualities and quantities of equipment and materials and End Product(s) to be furnished under the Contract.
- b. The technical specifications may include provisions adopted and issued by the Authority or may include other standards incorporated in the Contract Documents by reference.

TIGHT (used as a suffix). Apparatus is designated as watertight, dust tight, etc., when so constructed that the enclosing case will exclude the specified material.

U.S. DEPARTMENT OF TRANSPORTATION. U.S. Department of Transportation (DOT) means the Secretary of the (DOT) and other persons who may at the time be acting in the capacity of the Secretary, or authorized representative or any person otherwise authorized to perform the functions to be performed hereunder, including representatives of the Federal Transit Administration (FTA).

VALUE ENGINEERING. Proposals or submittals for evaluation that clearly describe or define new methodology, materials, or engineering techniques that significantly improve the vehicle/sub-system performance, life, or significantly reduces existing and future cost.

- a. Value engineering submittals are the direct result of Contractor or Subcontractor suggested improvements to vehicle standard, system, subsystem, methodology, materials or processing techniques that will result in significant cost savings, without any sacrifice in quality, reliability, or maintainability.
- b. Value engineering applicable to those areas of Contract responsibilities (i.e., best method of work performance, sequence and methodology of job performance, contracted engineering items, design restoration, etc.), as well as submittals that address alternatives to current method or means without significant improvement to design, function, performance or justifiable cost effective investments will not be considered.
- c. Submittals that originate from the Contractors or Subcontractors must clearly establish a cost savings. Submittals relative to the Contractual work, but not defined in the Contract Scope of Work, shall be applicable to fleet wide characteristics savings, and shall become the property of the MBTA upon acceptance.
- d. Submittals shall contain, as a minimum, the following:
 - (1) Background of suggested/affected change.
 - (2) Nature and measurement of value.
 - (3) Sufficient/adequate supportive documentation for evaluation.

VEHICLE. (SEE BUS)

VENDOR. (SEE SUPPLIER)

WORK (Procurement). Where the context will allow, the term "work" shall mean the production of goods and services furnished in accordance with the Contractor.

3. BUSINESS AND COMMERCIAL REQUIREMENTS

The following provisions are contractual and, by submitting a response to this RFP, Bidder agrees that the submission of their Bid with the signatures in the response forms (Sections 12 and 13 and Attachments 1, 2, 3, 4, and 5) makes all certifications as outlined in the solicitation documents. This Bid shall constitute a binding offer open for acceptance by the MBTA.

3.1. Award/Execution of Contract

Prior to Contract execution:

- The MBTA will perform a Pre-Award Buy America Audit
- The required Performance Guarantee (Section 3.3) shall be furnished

Should the successful Bidder fail to furnish the Performance Guarantee and execute the Contract within the time stipulated, the Authority may, at its option, declare the successful Bidder to be in breach of its obligations.

Upon execution of the Contract by all parties, Notice to Proceed shall be issued. The Contract shall be executed at the time of, or prior to, issuance of Notice to Proceed.

3.2. Insurance Requirements

A. The Contractor must carry and maintain, throughout the term of the Contract, including any extensions, the following minimum insurance requirements:

1. The Contractor must carry **Commercial General Liability Insurance** for personal injury, bodily injury and property damage, including products liability and completed operations, with limits not less than \$1,000,000 per occurrence and \$2,000,000 annual aggregate covering all work and services performed under the Contract. This insurance must include all operations and contractual liability.
2. The Contractor must carry **Excess Follow-Form Policy** with limits of not less than \$10,000,000 per occurrence and in the aggregate, covering all work and services performed by the Contractor under this Contract.
3. The Contractor must carry **Automobile Liability Insurance** with limits not less than \$1,000,000 combined single limit, covering the use of all motor vehicles owned, leased, hired and non-owned under the Contract.
4. The Contractor must carry **Workers' Compensation Insurance**, including Employers' Liability Insurance as provided by MGL Chapter 152, as amended, covering all work performed in Massachusetts under the Contract. Such insurance must contain a waiver of any and all subrogation rights against MBTA.

5. The Contractor must carry and maintain **Cyber Network Security and Privacy Liability**, including but not limited to unauthorized access, failure of security, breach of privacy perils, wrongful disclosure, collection, or other negligence in the handling of confidential information, privacy perils, and including coverage for related regulatory defense and penalties in an amount not less than \$1,000,000.
 6. The Contractor must carry **Professional Liability (Errors & Omissions) Coverage** for wrongful acts and personal injury, bodily injury, and property damage liability resulting from design engineer errors, with limits not less than \$5,000,000 per occurrence and \$5,000,000 annual aggregate, covering all design and engineering work and professional services performed under the Contract.
- B. All liability policies must be written on an occurrence basis.
 - C. All insurance carriers must have an A.M. Best rating of A- or greater.
 - D. Insurance required of the Contractor must be provided by or on behalf of all Subcontractors to cover their operations performed under the Contract. The Contractor will be held responsible for any modifications, deviations, or omissions in these insurance requirements as they apply to Subcontractors. MBTA preserves the right to request and receive original policies within 30 days of request.
 - E. The Contractor must include a waiver of subrogation rights against MBTA in its Workers' Compensation and Employers' Liability policies and must name MBTA as an additional insured under the Commercial General Liability, Automobile Liability, and Excess Follow-Form Policy.
 - F. All insurance required under Section 3.2 will be primary and noncontributory from any insurance or self-insurance maintained by MBTA.
 - G. Insurance Certificates for the above policies must be furnished to MBTA 10 working days prior to Contract execution.
 - H. MBTA retains the right to request copies of the above insurance policies at its sole discretion. Premium and rating basis information may be redacted. The Contractor must provide these within 30 days of MBTA request.
 - I. A minimum of 60 days' notice must be given to MBTA of a non-renewal, cancellation, or major change in any policy.

3.3. Performance Guarantee

A Performance Guarantee in the amount of **12%** of the contract shall be required by the Authority prior to execution of the Contract, unless otherwise agreed to by the Authority, to ensure the faithful performance of the Contract. The Performance Guarantee may be either a Performance Bond or an Irrevocable Stand-By Letter of Credit. The minimum requirements to be met by either performance guarantee are:

- The Performance Guarantee remains valid and in force until the 45th bus from the base contract is accepted for passenger service.
- The Bidder must certify in writing with its proposal that a 12% Performance Bond or an Irrevocable Stand-By Letter of Credit will be furnished should the Bidder become the successful Contractor.

Prior to the execution of a Change Order that includes the purchase of Option Vehicles (OPTION 1 or OPTION 2), the Contractor must obtain and present evidence to MBTA of a Performance Guarantee in the amount of 12% of the total Change Order value. This Performance Guarantee must remain valid and in force until all Option Vehicles are accepted for passenger service.

A. Performance Bond

The Performance Bond is to be secured through an insurance company (or companies) which is/are licensed in the Commonwealth of Massachusetts or which is/are approved by the Authority. The insurance company must have an A.M. Best rating of A- or better. The name of the agency or agent writing the bond shall be identified with or on the bond.

B. Irrevocable Stand-By Letter of Credit

The Irrevocable Stand-By Letter of Credit shall be executed in a form approved by the Authority following Notice of Award but prior to Contract execution.

If the Contractor chooses to provide a Letter of Credit as its performance guarantee, the following terms must be met:

1. The Letter of Credit must be issued by a bank in good standing. The Authority will not accept a Letter of Credit from an entity other than a bank.
2. The Letter of Credit must be in writing and must be signed by the issuing bank.
3. The Letter of Credit must conspicuously state that it is an irrevocable, non-transferable, “standby” Letter of Credit.
4. Massachusetts Bay Transportation Authority must be identified as the Beneficiary of the Letter of Credit.
5. The effective date of the Letter of Credit must be the same as the effective date of the Contract.
6. The expiration date of the Letter of Credit must cover the time up to and including the acceptance of the 45th bus.
7. The Letter of Credit must indicate that it is being issued to support the obligation of the Contractor to perform under the Contract. It must specifically reference the Contract between the MBTA and the Contractor for the purchase of buses.
8. The issuing bank’s obligation to pay will arise upon the presentation of the original Letter of Credit. This documentation will indicate that the Contractor is in default under the Contract. The above documents will be presented to the issuing bank’s representative at a location and time to be determined by the parties.
9. Statement from banking institution certifying Letter of Credit for the action, if awarded, to be provided with submission.

3.4. Contractor Responsibility and Legal Requirements Applicable to Motor bus Manufacture

The bus shall meet and the Contractor shall comply with all applicable Federal, State, and local regulations in effect for motor buses at the date of manufacture. These include but may not be limited to FMVSS, ADA, EPA and all applicable FMCSR and NFPA regulations in effect at the time the NTP is issued. Local regulations are defined as those below the state level. In the event of any conflict between the requirements of this Specification and any applicable legal requirement, then the legal requirement shall prevail.

Notwithstanding, anything in the Contract to the contrary, it is understood and agreed to by the Contractor that the Authority provided the Technical Specification for the sole purpose of describing in general terms the performance required from each bus, each bus’s systems and the discrete subsystems that make up the bus. The specification provided by the Authority does not in any way constitute a design of the bus or of such subsystems or discrete components. It is further understood that the Authority makes no representations regarding the

Technical Specifications. It shall be incumbent on the Contractor to verify the accuracy of the Technical Specifications prior to the time of the bid.

The Technical Specification is intended to leave the Contractor free to provide its own detail design application for all major subsystems and the Contractor shall assume complete and responsibility for the satisfactory operation and systems integration of the subsystems. The Contractor's responsibility includes but is in no way limited to; ensuring that the manufacture of the vehicle and the vehicles component parts are appropriate, coordinated, and compatible and that they perform correctly, whether together or individually.

The Contractor shall ensure that each subcontractor who will provide major items of equipment (for example, engine, transmission, brakes, air conditioning, heating and cooling controls, doors and controls) has a complete copy of the Technical Specifications. Sub-suppliers shall approve of and sign-off on the Contractor's specific application of their components. Proof of sub-supplier's installation approval, for all major subsystems, shall be provided to the Authority. All Subcontractors and subsystem suppliers proposed by the Contractor to manufacture parts / systems are subject to the Authority's approval.

3.5. Permits and Licenses

The Contractor shall procure all permits and licenses in producing the end product, pay all charges, fees, and taxes, and give all notices necessary and incidental to the due and lawful prosecution of this Procurement.

3.6. Ongoing Compliance Obligations

Contractor Compliance. The Contractor shall keep fully informed and shall comply with the provisions of applicable federal, state, and municipal laws, rules, and regulations that in any manner regulate the Contractor's performance of this Contract and those engaged or employed with the services herein described, other than any such laws, rules and regulations that relate to MBTA's own operations. The Contractor shall indemnify, protect, defend, and save harmless MBTA and its officers, agents and employees harmless from all fines, penalties, and liabilities imposed upon MBTA under any such laws, rules, and regulations by any public agency, authority or court having jurisdiction over the parties hereto when the imposition of same is attributable to the failure of the Contractor to keep fully informed and to comply with its obligations in this regard, provided that if any public agency, authority or court seeks to impose such fine, penalty or liability on the MBTA, the MBTA shall promptly notify the Contractor and allow the Contractor, in consultation with the MBTA, to object to and defend such imposition.

Subcontractor Compliance. The Contractor shall be responsible for the compliance of its subcontractors/suppliers to the requirements of federal, state, and municipal laws, ordinances, rules, and regulations as may be applicable to the performance of such subcontractors or suppliers pursuant to this Agreement.

Change in Existing Law. The Contractor is subject to any existing or future valid legislative act, municipal ordinance, decree, order or regulation of any public body, commission or authority having jurisdiction over the MBTA, and order of decree by a court of competent jurisdiction to which the MBTA or any predecessor or successor in title may be a party, and, if the Contractor is unable to enjoy any or all of the privileges granted in the Contract, the MBTA shall not be liable to the Contractor in damages for breach of the Contract. The MBTA and the Contractor shall assess the impact any change in existing law may have on the price and schedule of the work herein defined and modify the Contract as needed in accordance with the Change Order provision of the Contract.

If any discrepancy or inconsistency is discovered in the Contract in relation to any law, ordinance, regulations,

order or decree, Contractor shall forthwith report the same to the Authority in writing.

Contractor shall provide that changes in the Contract work, which are necessitated by laws or regulations that are enacted or promulgated after the Effective Date, shall constitute Contract changes in accordance with the Change Order provision of the Contract.

3.7. Claims

The Contractor shall give written notice to the MBTA of potential claim no later than thirty (30) calendar days from any act or event for which it intends to seek adjustment in payment, terms, or schedule and for which said matter is not disposed of by agreement through a Change Order. The written notice shall set forth the basis of the claim in sufficient detail to allow the MBTA to thoroughly evaluate the situation and shall provide an estimate of any costs involved. The Contractor shall also furnish any additional information relating to the claim as the MBTA may reasonably request. The MBTA shall respond to the claim within thirty (30) calendar days of receipt of said claim.

It is an essential part of this Contract that the Contractor performs fully, entirely, and in an acceptable manner, the work required under the Contract within the times stipulated. Therefore, the Contractor hereby agrees that it shall have no claim for damages of any kind on account of any delay in commencement of the work or any delay or suspension of any portion thereof, except as hereinafter provided.

In case the commencement of the work is delayed or any part thereof is delayed or suspended by the Authority (except for reasons caused the fault or neglect of the Contractor), the Contractor shall be granted an extension of time in which to complete the work, less a reasonable period of time within which the Contractor could have done necessary preliminary work.

If performance of all or any major portion of the work is suspended, delayed or interrupted for any unreasonable period of time by an act or failure to act by the Authority in the administration of the Contract as required by the Contract, and without the fault or negligence of the Contractor, an adjustment to the Contract shall be made by the Authority, in accordance with the Change Order provisions of Section 6. The Contractual adjustment may be for: (1) an extension of time; and/or (2) an increase or decrease in the actual cost of performance of the Contract.

No adjustments to the Contract shall be made if performance by the Contractor would have been prevented by other causes even if the work had not been suspended, delayed or interrupted by the Authority.

Any dispute concerning whether the delay or suspension is unreasonable or any other question of fact arising under this section shall be determined by the Authority. Such determination shall be a condition precedent to the right of the Contractor to receive any cost adjustment hereunder.

The decision of the Authority shall be final and conclusive unless within thirty (30) days of receipt of the Authority's decision the Contractor mails or delivers to the Authority a written notice of rejection, in which event the decision of the Authority shall have no further effect and either party may have the dispute and the subject matter thereof settled in accordance with the provision of Section 3.8 (Disputes).

3.8. Disputes

The MBTA and the Contractor intend to resolve all disputes under this Agreement to the best of their abilities in an informal manner. To accomplish this end, the parties will use an Alternative Dispute Resolution process to resolve disputes in a manner designed to avoid litigation. In general, the parties contemplate that the Alternative Dispute Resolution process will include, at a minimum, an attempt to resolve disputes through communications between their staffs, and, if resolution is not reached at that level, a procedure for review and action on such disputes by appropriate management level officials within the MBTA and the Contractor's organization. In the

event that a resolution of the dispute is not mutually agreed upon, the parties can agree to mediate the dispute or proceed with available remedies to enforce, suspend or terminate the Contract, including litigation. Notwithstanding any provision of this section, or any other provision of this Contract, it is expressly agreed and understood that any court proceeding arising out of a dispute under the Contract shall be heard by a Court de novo and the court shall not be limited in such proceeding to the issue of whether the Authority acted in an arbitrary, capricious or grossly erroneous manner. Pending final settlement of any dispute, the parties shall proceed diligently with the performance of the Contract, and in accordance with the Authority's direction or decisions made thereof.

3.9. Claims and Disputes

Any dispute arising at any time under the Contract Documents which is not disposed of by agreement through a Change Order, Section 6 shall be decided in the first instance by the Authority, as described above, who shall reduce its decision to writing without unreasonable delay.

1. If the Contractor fails to submit a claim within twenty-one (21) working days of the Authority's dispute of the Change Order request, that claim shall be deemed waived by the Contractor without further recourse.
2. Any other claim must be brought to the attention of the Authority within fifteen (15) working days of the event which raised the claim. If the Contractor fails to bring the claim within the fifteen (15) working day period, the claim shall be deemed waived by the Contractor without further recourse.

The decision of the Authority shall be final and conclusive unless, within thirty (30) days from the date of receipt of such copies thereof, the Contractor mails or delivers to the Authority a written notice of rejection, in which event the decision of the Authority shall have no further effect and either party may have the dispute and the subject matter thereof settled by a court of competent jurisdiction.

In the event the Authority fails to make a decision as aforesaid on any dispute within a reasonable period after having been requested to do so by the Contractor, then either party may have the dispute and the subject matter thereof settled directly by a court of competent jurisdiction.

Pending final settlement of any dispute, both parties shall proceed diligently with the performance of the Contract and in accordance with the Authority's decision, if any.

Notwithstanding any provisions of this section or any other provision of this Contract, it is expressly agreed and understood that any court proceeding arising out of a dispute under the contract shall be heard by a Court de novo and the court shall not be limited in such proceeding to the issue of whether the Authority acted in an arbitrary, capricious or grossly erroneous manner.

Nothing mentioned above precludes the parties from informally resolving a claim or dispute or prevents a negotiated settlement of a claim or dispute prior to resolution by the courts.

3.10. OEM Software

Upon execution of the Contract, the Contractor shall provide the Authority a list of all OEM software comprising proprietary works ("Proprietary Software") for all major vehicle subsystems. From time to time and only upon request, information contained within the listed software may be made available to the Authority through the OEM of the vehicle subsystem. The Contractor and OEM are not obligated to provide copies of source code, as this is proprietary intellectual property; however, the Contractor is obligated to assist the Authority with any technical assistance for the duration of the service life of the vehicle free of charge. It is the Authority's

prerogative to evaluate the long-term viability of the Contractor and its Subcontractors and Suppliers based upon the criteria set forth in “Qualification Requirements.”

3.11. Examination and Audit

The Contractor shall maintain and require its subcontractors to maintain, in accordance with generally accepted accounting principles, books, records, and other compilations of data pertaining to the Contractor’s services, delivery of materials, and other items in such detail as to substantiate claims for payment or for collections on behalf of the Authority under this Contract. Upon reasonable advance written notice, the General Manager of the MBTA or his designated representative (including private auditing firm) shall have the right to examine and audit all data and records of the Contractor relating to its performance under the Contract.

The Contractor, upon seven (7) days’ advance written notice by the MBTA, shall make available at its local office to MBTA personnel, its representatives or other authorized agencies, all records and data maintained by the Contractor for the purposes of performing financial, compliance, and performance audits related to the reimbursable costs under this Agreement. The Contractor shall maintain all books, records, accounts and reports required under this Contract for a period of at not less than seven (7) years after the date of termination or expiration of this Contract, except in the event of litigation or settlement of claims arising from the performance of this Contract until the disposition of all such litigation, appeals, claims or exceptions related thereto.

3.12. Inspection of Site(s)

The Authority and/or its representatives shall have access to the site of the construction/manufacture/assembly and shall have the right to inspect all project work.

3.13. Contractor Furnished Facilities

The Contractor shall provide appropriate office space for the Resident Inspectors in close proximity to the final assembly area. This office space shall be equipped with desks, outside and interplant telephones, copier and facsimile machine, file cabinet, chairs, internet access, and clothing lockers sufficient to accommodate the resident inspector staff. The office shall be appropriately heated in the winter and air conditioned in the summer. The Resident Inspector shall have access to rest room facilities. The Resident Inspector shall have direct 24 hour, 7-day access to his office by automobile.

The Contractor shall furnish and maintain at Contractor’s expense facilities for the use of the Authority’s Engineers and Inspectors for the duration of the Contract at the Contractor’s production facility and final assembly/final staging area if applicable in accordance with the Technical Specification No. VE21-054. The Contractor shall provide appropriate space to support the First Article Inspection and any subsequent production facility visits for the Authority’s team of Engineers and Inspectors.

3.14. Project Management Communications

The Contractor shall use an Internet web-based project management communications tool, E-Builder® ASP software or another system as designated by the Authority, and protocols included in that software during this project. The use of project management communications as herein described does not replace or change any contractual responsibilities of the participants.

1. Project management communications is available through E-Builder® as provided by "e-Builder®" in the form and manner required by the Authority.
2. The project communications database is on-line and fully functional.
3. User registration, electronic and computer equipment, and Internet connections are the responsibility of the Contractor. The sharing of user accounts is prohibited.

The Contractor shall obtain E-Builder software at their own expense and need to contact E-Builder® for availability and cost.

1. Nothing in this specification or the subsequent communications supersedes the parties' obligations and rights for copyright or document ownership as established by the Contract Documents. The use of CAD files, processes or design information distributed in this system is intended only for the project specified herein.
2. The intent of using E-Builder® is to improve project work efforts by promoting timely initial communications and responses. Secondly, to reduce the number of paper documents while providing improved record keeping by creation of electronic document files

Access to the E-Builder web site will be by the Contractors staff who are licensed users.

1. Authorized users will be contacted directly by the web site provider, E-Builder®, who will assign the temporary user password.
2. Individuals shall be responsible for the proper use of their passwords and access to data as agents of the company in which they are employed.

Administrative users have access and control of user licenses and all posted items. **DO NOT POST PRIVATE OR YOUR COMPANY CONFIDENTIAL ITEMS IN THE DATABASE!** Improper or abusive language toward any party or repeated posting of items intended to deceive or disrupt the work of the project will not be tolerated and will result in deletion of the offensive items and revocation of user license at the sole discretion of the Administrative User(s).

The use of fax, email and courier communication for this project is discouraged in favor of using E-Builder® to send messages. Communication functions are as follows:

1. Document Integrity and Revisions:
 - a. Documents, comments, drawings and other records posted to the system shall remain for the project record. The authorship time and date shall be recorded for each document submitted to the system. Submitting a new document or record with a unique ID, authorship, and time stamp shall be the method used to make modifications or corrections.
 - b. The system shall make it easy to identify revised or superseded documents and their predecessors.
 - c. Server or Client-side software enhancements during the life of the project shall not alter or restrict the content of data published by the system. System upgrades shall not affect access to older documents or software.
2. Document Security:
 - a. The system shall provide a method for communication of documents. Documents shall allow security group assignment to respect the contractual parties communication except for Administrative Users. **DO NOT POST PRIVATE OR YOUR COMPANY CONFIDENTIAL ITEMS IN THE DATABASE!**
3. Document Integration:

- a. Documents of various types shall be logically related to one another and discoverable. For example, requests for information, daily field reports, supplemental sketches and photographs shall be capable of reference as related records.
4. Notifications and Distribution:
 - a. Document distribution to project members shall be accomplished both within the extranet system and via email as appropriate. Project document distribution to parties outside of the project communication system shall be accomplished by secure email of outgoing documents and attachments, readable by a standard email client.
5. Required Document Types:
 - a. Submittals, including record numbering by drawing and specification section
 - b. Transmittals, including record of documents and materials delivered in hard copy
 - c. Meeting minutes
 - d. Application for payments
 - e. Review comments
 - f. Test reports
 - g. Inspection results
 - h. Quality documents
 - i. Drawings
 - j. Schedules
 - k. Specifications
 - l. Correspondence letters

Except for paper documents, which require original signatures and large format documents (greater than 8½ x 11 inches), all other 8½ x 11 inches documents shall be submitted by transmission in electronic form to the E-Builder® web site by licensed users.

1. The Contractor and his representatives, the Project Manager and his representatives, at every tier shall respond to documents received in electronic form on the web site, and consider them as if received in paper document form.
2. The Contractor and his representatives, the Project Manager and his representatives, at every tier reserves the right to and shall reply or respond by transmissions in electronic form on the web site to documents actually received in paper document form.
3. The Contractor and his representatives, the Project Manager and his representatives, at every tier reserves the right to and shall copy any paper document into electronic form and make same available on the web site.
4. The following are some but not all of the paper documents which require original signature or use of an MBTA-approved electronic signature solution:
 - a. Contract
 - b. Change orders
 - c. Application and certificates for payment
 - d. Correspondence letters

In addition to other requirements specified in this Section, The Contractor and their representatives at every tier required to have a user license(s), shall be responsible for the following:

1. Providing suitable computer systems for each licensed user at the user's normal work location with high-speed Internet access

2. Each of the above referenced computer systems shall have the following minimum system and software requirements:
- a. Desktop configuration (laptop configurations are similar and should be equal to or exceed desktop system.)
 - i. PC system 500 MHz Intel Pentium III or equivalent AMD processor
 - ii. 128 MB Ram
 - iii. Display capable of SVGA (1024 x 768 pixels) 246 colors display
 - iv. 101 key keyboard
 - b. Mouse or another pointing device
 - c. Operating system and software shall be properly licensed.
 - i. Internet Explorer or another browser. This specification is not intended to restrict the host server or client computers provided that industry standard HTTP clients may access the published content.
 - ii. Adobe Acrobat Reader
 - iii. Users intending to scan and upload to the documents area of E-Builder® should have Adobe Acrobat
 - iv. Users should have the standard Microsoft Office Suite or the equivalent.

4. CONTROL OF PROCUREMENT

4.1. Contract Plans

- A. Contract Plans and Sketches showing the general arrangement are included in the Technical Specification. The Contract Plans may be supplemented by the Engineer as may be required to amplify or control the work. The Contractor shall perform the work required by such supplements without additional compensation except as provided by the Contract.
- B. The Authority makes no representation or warranty, either express or implied, including any implied warranty of merchantability or fitness for a particular purpose, or any other obligations or liability on the part of the Authority as to the Authority's existing vehicles, sketches, drawings, mock-ups, books, manuals, or prints. The Authority neither assumes nor authorizes any other person to assume for it any other liability in connection with the aforementioned materials. These materials should be used for reference purposes only.

4.2. Contractor's Schedule of Completion

The Contractor shall follow the schedule listed in Technical Specification Section TS 4 for completion of the design review and documentation process.

Within two weeks following NTP, a project kickoff meeting shall be held. The Contractor shall present the proposed project schedule, production schedule, and quality assurance program plan. The Design Review schedule calls for the Final Design review meeting to be held 16 weeks from NTP.

The Pilot Bus First Article Inspection shall be conducted at the Contractor's facility upon completion of the Final Design Review. The Contractor is responsible for correcting all non-compliance items, identified by the Authority at the Pilot Bus First Article Inspection, prior to the Pilot Buses release for shipment. Pilot Buses shall be delivered to the Authority no later than 26 weeks from NTP. Upon receipt of the bus in Boston, the Pilot Buses will undergo Pilot Bus Testing and Demonstration program, approximately 2 months in length, conducted by various MBTA stakeholders. Feedback from the review will be provided to the Contractor and modifications (if any) may be required to be cut-in the baseline design configuration during production.

Delivery of the Pilot Buses must be completed in the second quarter of calendar year 2023 and at least 6 weeks prior to line entry of production buses Nos. 3 – 45. The Contractor shall commence with serial production of the 43 serial production buses in sufficient time from NTP to ensure that bus Nos. 3 – 31 shall be delivered in the fourth quarter of calendar year 2023 and bus Nos. 32 – 45 delivered in the fourth quarter of calendar year 2024. The last bus shall be delivered no later than December 31, 2024.

Upon completion of final design reviews, at the Authority's discretion, first article inspections (FAI) for all major sub-suppliers may be conducted as described in Technical Specification Section 4.8.

The Project Schedule must be submitted to the Authority at the Kickoff Meeting and updates shall be provided on a monthly basis thereafter. [CDR #1]

The Production Schedule must be submitted to the Authority at the Kick-off Meeting and updates shall be provided on a monthly basis thereafter. [CDR #2]

Contractor's request for Project or Production Schedule modification shall be submitted to the Authority for review and consideration of concurrence. Any such schedule modification requests shall include Contractor documentation substantiating any claim of delay.

The Contractor shall give due consideration to the time required for review and acceptance by the Authority in scheduling the submittal of each item. Technical Specification Table 1 *CDR Requirement* identifies certain minimum requirements for submittal due dates.

Unless specified in the Technical Specification, the Contractor shall provide all submittals, to permit Authority review and acceptance, a minimum of four (4) weeks prior to manufacture, construction, installation, or other need, for each item.

4.3. Delivery

The Contractor bears full responsibility for all related costs for the transport of the Vehicles, Spares, Training Aids, related equipment, as specified, and Options, if executed, to the Authority's F.O.B. destination.

Vehicles shall be delivered in accordance with the delivery schedule upon certification by the Engineer's authorized representative that all static testing specified in Technical Specification VE21-054 has been completed.

Base Order Battery Electric Buses shall be delivered at a rate not to exceed six (6) buses per week, Monday through Friday excluding Saturday, Sunday, and Holidays. Delivery of each group of buses shall be completed in accordance with the following schedule:

Group	Description	Timing
1	Base Order Pilot Buses (Nos. 1 and 2)	Delivery must be completed during the second quarter of calendar year 2023 and no later than at least six weeks prior to line entry of serial production buses 3 - 45

2	Base Order Serial Production Buses (Nos. 3 – 45)	Buses 3 – 31 shall be delivered in the fourth quarter of calendar year 2023 and bus Nos. 32 – 45 delivered in the fourth quarter of 2024. The last bus shall be delivered no later than December 31, 2024.
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Failure to comply with the above, subject the Contractor to Liquidated Damages as defined in Section 7.6.

If awarded at contract NTP, Option 1 or Option 2 Battery Electric Buses shall be delivered at a rate no less than four (4) and not to exceed six (6) buses per week, Monday through Friday excluding Saturday, Sunday, and Holidays. Delivery of each group of buses shall be completed in accordance with the following schedule:

Group	Description	Timing
1	Option 1 Pilot Buses (Nos. 1 and 2)	Delivery of the Option 1 Pilot Buses must be completed in the first quarter of calendar year 2024 and no later than at least six weeks prior to line entry of Option 1 serial production buses 3 - 35
2	Option 1 Serial Production Buses (Nos. 3 – 35)	Delivery must occur and be completed during the fourth quarter of calendar year 2024 and no later than December 31, 2024.
3	Option 2A Pilot Buses (Nos. 1 and 2)	Delivery of the Option 2A Pilot Buses must be completed in the second quarter of calendar year 2024 and six months prior to the delivery of base order production buses Nos. 3 – 45.
4	Option 2A Serial Production Buses (Nos. 3 – 35)	Delivery must occur and be completed during the fourth quarter of calendar year 2024. The last bus shall be delivered no later than December 31, 2024.

Failure to comply with the above, subject the Contractor to Liquidated Damages as defined in Section 7.6.

The point of delivery shall be the Contractor's Local Commissioning/Testing Facility. This facility must be located within a twenty-five (25) mile radius of 80 Broadway, Everett, MA or an Authority approved location, to enable the Contractor to quickly transfer buses to and from the Authority's Maintenance locations. All final inspection, testing (including DPU), correction of defects, modifications, and required retrofits shall be performed at this facility. The location of the Commissioning/Testing Facility shall be confirmed by Contractor no later than one (1) month prior to delivery of the first Pilot Bus to allow sufficient time for the Authority's review and approval.

4.4. Acceptance of Buses

All acceptance testing will be performed at the Contractor's Local Commissioning Testing Facility.

Within seven (7) calendar days after arrival at the designated point of delivery, the bus shall undergo the Authority post-delivery tests as defined in the Technical Specification VE21-054. If the bus passes these tests, acceptance of the bus by the Authority occurs on the fifteenth (15th) day after delivery. Acceptance may occur earlier if the Authority notifies the contractor of early acceptance or places the bus into passenger service. If the bus fails these tests, it shall not be accepted until the repair procedures defined in Section 3.31 have been carried out and the bus retested until it passes. Buses must pass Massachusetts Motor Vehicles Codes of Inspection and Massachusetts Department of Public Utilities inspections.

NOTE: The Authority reserves the right to accept a vehicle for service pending correction of infancy failures, parts replacements and/or but not limited to, fleet defects.

4.5. Repairs After Non-Acceptance

REPAIRS BY CONTRACTOR

If the Authority requires the Contractor to perform repairs after nonacceptance of the bus, the contractor's representative must begin work within five (5) working days after receiving notification from the Authority of failure of acceptance tests. The Authority shall make the bus available to complete repairs timely with the Contractor's repair schedule.

The Contractor shall provide at its own expense all spare parts, tools, and space required to complete repairs. At the Authority's option, the Contractor may be required to remove the bus from the Authority's property while repairs are being effected. If the bus is removed from the Authority's property, repair procedures must be diligently pursued by the Contractor's representative, and the Contractor shall assume risk of loss and insure the vehicle for 100% of its Contract value while the bus is under its control. All costs incurred by the removal of the Authority's buses to and from the Contractor's repair facility are to be borne by the Contractor and reimbursable under warranty if the Authority's personnel are utilized to shift the buses.

The Contractor shall reimburse the Authority for the Authority's repairpersons/mechanics providing side by side assistance, delivery/towing incurred costs, and/or oversight of all repairs performed on Authority property. The amount shall be determined by multiplying the number of man-hours reasonably required to provide side by side assistance by the workers straight wages plus benefits. MBTA's full burdened rate for a repairperson/mechanic of \$79.22 per hour (FY2021). This rate is subject to escalation based upon approved labor contracts during the term of this contract. These wages and fringe benefit rates shall not exceed the rates in effect in the Authority's service garage at the time the defect correction is made.

REPAIRS BY AUTHORITY

Parts Used: If the Authority decides to perform the repairs after nonacceptance of the bus, it shall correct or repair the defect and any related defects using Contractor specified parts available from its own stock or those supplied by the Contractor specifically for this repair. Monthly, or at a period to be mutually agreed upon, reports of all repairs covered by this procedure shall be submitted by the Authority to the Contractor for reimbursement of replacement of parts. The Contractor shall provide forms for these reports.

Contractor Supplied Parts: If the Contractor supplies parts for repairs being performed by the Authority after nonacceptance of the bus, these parts shall be shipped prepaid to the Authority from any source selected by the Contractor within five (5) working days after receipt of the request for said parts.

Return of Defective components: The Contractor may request that parts covered by this provision be returned to the manufacturing plant. The total cost for this action shall be paid by the Contractor.

Reimbursement for Labor: The Authority shall be reimbursed by the Contractor for labor. The amount shall be determined by multiplying the number of man-hours reasonably required to correct the defect by the workers straight wages plus benefits, plus the cost of towing in the bus if action was necessary. MBTA's full burdened rate for a repairperson/mechanic of \$79.22 per hour (FY2021). This rate is subject to escalation based upon approved labor contracts during the term of this contract. These wages and fringe benefit rates shall not exceed the rates in effect in the Authority's service garage at the time the defect correction is made. Refer also to Specification VE21-054.

Reimbursement for Parts: The Authority shall be reimbursed by the Contractor for defective parts that must be replaced to correct the defect. The reimbursement shall include taxes where applicable, and fifteen percent (15%) handling costs.

4.6. Contractor's Drawings

- A. Drawing submittals shall be in accordance with the requirements outlined in the Technical Specifications VE21-054.
- B. The Contractor shall maintain, and update as required, a log listing all drawings by number and title and showing dates of preparation, submission, and preliminary and final acceptance, and shall submit revised copies of same to the engineer and Consultant at periodic intervals as established by the Engineer.
- C. The Contractor shall submit to the Engineer and to the consulting Engineer, in accordance with the CDR schedule and Technical Specification Table 1, and this RFP, the following design and engineering drawings including but not limited to:
 - 1. Electric and Pneumatic Schematics
 - 2. Piping, Cable, and Conduit Diagrams
 - 3. Seating Arrangement Drawings
 - 4. Styling and Painting Drawings
 - 5. Console Arrangement Drawings
 - 6. Component Location Drawings
 - 7. Structural Drawings
 - 8. Systems covered by Technical Specification Attachments
 - 9. Such other general drawings required for the understanding, operation, and maintenance of the Vehicles
- D. Individual drawings for each part designed and or manufactured by or for the Contractor shall be prepared. The Authority will respect proprietary data within legal constraints and consistent with the Contract and applicable laws. Assembly, sub-assembly, and arrangement drawings shall include a complete Bill of Material and Parts List on the field of the drawing describing all items, including the Subcontractor's parts, and all equipment and specialty details which form part of the assembly.
- E. All the drawings supplied by the Contractor in accordance with this Specification shall be so delineated that the wiring, piping, or mechanical interface between components shall be readily and clearly identifiable.
- F. The Contractor shall submit all design layouts, assembly, and subassembly drawings of safety related features for review by the Contractor's Safety Engineer prior to its release for production to assure the safety of crew and maintenance personnel.

4.7. Contractor's Specification

- A. The Contractor shall submit to the Engineer As-Built Specifications and As-Built Drawings in line with Technical Specification section 4.14, Technical Specification Attachments, and RFP Section 4.6 (C).
 - 1. It shall generally follow the format of the Authority's procurement specification, listing all design criteria and parameters; the manufacturer and model number of all major equipment; and inspection and test procedures.
 - 2. Provisions shall be made for listing all Change Orders, if any, and approved deviations from the procurement specifications.

4.8. Contractor's Analyses

The Contractor shall submit to the Engineer design verification documentation in accordance with Technical Specification and TS Attachment 2.

4.9. Contractor's Training Aids

- A. The Contractor shall submit to the Engineer, in accordance with the CDR schedule and TS Table 1, the Training Aids required by Technical Specification VE21-054 – Section 5.6.4, Training Aids.
- B. Upon delivery of the Training Aids, they shall become the property of the Authority.

4.10. Shop Drawing Review

- A. Review by the Engineer of the Contractor's drawings does not relieve the Contractor or any Subcontractor of the responsibility for full compliance with the Contract requirements; for correctness of dimensions, clearances, and material quantities, for proper design of details; for proper fabrication and construction techniques; for proper coordination with Subcontractors; and for providing all devices required for safe and satisfactory construction and operation.
- B. The Contractor shall submit drawings for review with such promptness as to cause no delay in the work.
- C. The Authority may exercise its right of First Article Inspection as a further review to confirm the validity of the Contractor's design and shop drawings.
- D. The following drawings will be submitted for review by the Engineer:
 - 1. Four (4) prints of the Contractor drawings.
 - 2. Three (3) copies of all Supplier drawings, catalog cuts, instruction books, renewal parts data lists, tabulations, and the like not adaptable for the furnishing of reproducibles.
- E. Review procedures shall be as follows:
 - 1. Contractor submits drawings for review.
 - 2. Engineer shall respond as rapidly as practical that drawings are:
 - a. Approved
 - b. Conditionally Approved (with noted comments)
 - c. Not Approved (with changes noted)
 - d. Approval Not Required
 - 3. Drawings designated in categories b. and c. above shall be promptly reviewed and revised by the Contractor.
 - 4. Construction on the various areas of the Vehicle shall not commence until drawing(s) delineating the work to be performed on a particular area of the Vehicle have been submitted to the Engineer and been designated "Reviewed without Comment", "Reviewed with Noted Comment", or "Review Not Required."
 - 5. Contractor shall submit drawings for review in the order in which the Contractor intends to undertake work on the vehicle.
 - 6. It is not the intent of the Authority to require that all drawings governing a particular vehicle type be submitted for review before any work can commence.
 - 7. Contractor should submit drawings showing physically related areas of the vehicle as simultaneously as possible.
 - 8. Acceptance of the Contractor's drawings and data by the Authority shall be for general detail and arrangement only, and shall not relieve the Contractor of any responsibility including, but not limited to, responsibility for accuracy of dimensions and details. The Contractor shall remain responsible for agreement and conformity of its drawings and data to the Contract Documents and Specifications.

4.11. As-Built Drawings and Specifications for Final Record

- A. The following drawings shall be submitted for final record after review by the Engineer:
 - 1. All Contractor Drawings applied to this Contract and all Vendor drawings showing material applied to the vehicles shall be provided in AutoCAD format and searchable PDF on secure USB flash drives (Kingston Data Traveler Vault Privacy 3.0 or latest revision secure flash drives) in accordance with Technical Specification VE21-054.
 - 2. Fourteen (14) copies of the Contractor's Specifications, all catalog cuts, instruction books, renewal parts data (full detail, plus recommended list), lists, tabulations and the like, not adaptable for the furnishing of reproductions.
 - 3. The Contractor shall prepare record drawings showing general and detail arrangements of the vehicle.
 - 4. Electric schematics should be in the same format as the schematics for the Authority's Vehicles. Refer to Technical Specification VE21-054 for details.
- B. As-built drawings and Contractor's specifications shall have all engineering, manufacturing, and installation changes incorporated.
- C. The Contractor shall furnish to the Authority's designated technical representative(s) and to the Authority, at any time requested to do so prior to the delivery of the reproducible drawings, prints of each working drawing for the purpose of maintaining and servicing the vehicle. NOTE: The Authority makes no representation or warranty as to the accuracy, completeness, legibility or suitability of the Authority's existing drawings as specified under the Contract Documents.

4.12. Contractor Furnished Materials

The Contractor's attention is directed to Technical Specifications VE21-054 for details regarding the requirements for Operating Instruction Books, Maintenance Instruction Books, Renewal Parts Manuals, Technical Procedures Manuals, and Vehicle History Books.

4.13. Access to Documents

Any and all drawings, shop drawings, plans, specifications, and any and all graphic depictions produced by the Contractor pursuant to this Contract shall be made available to the Authority and can be used to secure the manufacture or replacement of any assembly or component for its use in the maintaining of vehicles without any payment of royalties by the Authority. Confidential Information of the Contractor will be protected to the extent allowable by law.

4.14. Conformity with Plans and Specifications

- A. No willful and substantial deviation for the Contract Document Plans and Specifications shall be made unless authorized in writing by the Authority.
- B. Any change which can affect the cost of, and/or time or schedule for completion of, the Contract shall be addressed by Change Order to the Contract in accordance with RFP Section 6.

4.15. Access to Work and Records

- A. The Authority's authorized representatives shall have access, at any time during the Contractor's normal working hours, to the premises used by the Contractor to any plant or place where materials, work, or any part thereof, are being made, preformed, or stored.
- B. The Authority shall arrange for inspections so as to avoid or minimize delay to the work.
- C. Access, at any time during working hours upon proper notification to the Contractor by the Authority, shall also be granted for inspection of all accounting and project management records and documents of the Contractor and its suppliers, relating to any labor, materials, plant, equipment, overhead and other costs used in the performance of work described in any Change Order.
- D. Access shall be given or obtained both before and after completion of this Contract for the duration of the guarantee period.
- E. The Contractor shall retain, for change orders and claims, all accounting records and supporting documentation evidence required to demonstrate compliance with generally accepted accounting principles and the Federal Acquisition Regulation cost standards. Project management records shall also be retained.
- F. The Contractor shall insert a clause containing all of the provisions of this section, including this paragraph, in any subcontract of at least \$50,000 under this contract, altering the clause only as necessary to identify properly the contracting parties.

4.16. Project Meetings

- A. Meetings shall generally be held as scheduled by the Authority, at which time the Contractor shall be present to discuss any and all details as required relative to the execution of the work. The Authority reserves the right to increase or decrease the number of meetings.
 - 1. Additional meetings shall be held as required by the Authority, or at the request of the Contractor in order to discuss the particular aspects of the work.
 - 2. Manufacturers, Subcontractor, Supplier and/or other representatives, as determined necessary by the Authority, shall be present at any such meetings.
 - 3. The Project Meetings shall be scheduled in line with Section 4 of the Technical Specification. Meeting Agendas shall prioritize open issues and critical items that are on the critical path to ensure conformance to the project schedule.
- B. The Authority will keep detailed minutes of all meetings, including but not limited to the following information:
 - 1. Date, time, and location;
 - 2. Attendees, including titles and affiliations;
 - 3. Subjects discussed, and agreements reached;
 - 4. Drawings and sketches submitted for review and action taken.
- C. A copy of the minutes of each meeting shall be prepared and delivered, within the time stipulated at the close of the meeting and/or as directed by the Authority's designee present at the same.
- D. The draft minutes shall be reviewed for any corrections, if necessary, by the Authority, after which three final copies shall be prepared and signed by the Authority and the Contractor, with each party retaining once copy.

4.17. Project Photographs

- A. At the completion of the first vehicle, a set of color digital format photographs, showing at least fifty views, shall be provided on secure USB flash drives (Kingston Data Traveler Vault Privacy 3.0 or latest revision secure flash drives). The Authority's Inspector will determine the subject matter to be photographed. The electronic copies of the photographs shall also become the property of the Authority. The MBTA will consider such photographs to constitute security sensitive information subject to exemption(s) of the Massachusetts Public Records Law, G.L. c. 66
- B. All costs for the Project Photographs shall be included within the Contract price submitted.
- C. The Authority's representative(s) shall have the right to take additional photographs of the work with the Authority's equipment and at the Authority's expense.

4.18. Further Obligations

- A. All correspondence, drawings, data, or other written communications pertaining to this Contract shall be in the English language using the English system of weights and measures. All monies expressed shall be in United States dollars. All conversations between Offerors, the Contractor, and the Authority shall be in English. All correspondence shall be on single sided 8-1/2" by 11" (216 x 279 mm) white sheets.
- B. Communication in connection with this Contract shall be in writing, and shall be delivered personally; or by email, or by regular, registered or certified mail addressed to the officer(s) or employee(s) of the Authority and of the Contractor designated to receive such communications. Telephone calls may be used to expedite communications, but shall not be official communication unless confirmed in writing.
- C. In order to preclude misunderstanding and delays in the procurement process arising from language difficulties, the Authority requires that representatives of the Contractor who serve as official liaisons to the Authority or its representatives shall be sufficiently fluent and versed in the speech, writing, and understanding of the English language so as to enable a facile and comprehensive language intercourse between the Contractor and the Authority and its representatives. To the extent that it concerns their ability to communicate, the Authority reserves the right of rejection of any representative of the Contractor who is found by the Authority to be so deficient in ability to communicate in English as to be prejudicial to the Authority's best interest.
- D. Metric dimensions, if applicable, shall be included on drawings shown parenthetically either following or under the English dimensions. Metric dimensions smaller than one (1) meter shall be shown in millimeters and dimensions one (1) meter and larger shall be shown in meters and decimal meters.
- E. The Contractor shall submit drawings, as required, and schedules to verify that the Contractor's program timing is in compliance with all the requirements of the Contract Documents.

5. CONTROL OF MATERIALS

5.1. Quality of Supply

- A. The Contractor shall furnish all materials required for the furnishing and delivery of vehicles in accordance with the Contract Documents, and the materials shall meet the requirements of the Specifications for the kind of applications involving its use.
- B. Unless otherwise provided, only quality materials which are generally accepted in the industry and conform to the requirements of these Specifications shall be used in the work.

5.2. Trade Names and Alternatives

- A. For convenience in designation on the Plans or in the Specifications certain articles or materials to be incorporated in the work may be designated under trade names or the names of manufacturers and its catalog information.
- B. Except in these instances where used in a particular project, either completed or in the course of completion, the use of an alternative article or material which the Contractor represents to be of at least equal quality and of the required characteristics for the purpose intended shall be permitted subject to all of the following requirements:
 - 1. It is not the intent of these Specifications to have the Contractor seek acceptance from the Authority for the various interchangeable items of different manufacture that are normally stocked and used by the Contractor. It is the intent of these Specifications that alternative materials for major items of equipment, herein specified, be acceptable to the Authority.
 - 2. The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor and the Contractor shall furnish all information necessary as required by the Authority at no additional cost to the Authority.
 - 3. There shall be no substitution for any accepted materials, component, design, or fabrication unless and until the proposed substitute has received written acceptance of the Authority. The Authority may require the removal of any substitute or unaccepted item which is installed by the Contractor without the written acceptance of the Authority. All financial benefits accruing from the substitute materials, components, design, or fabrication shall be the sole right of the Authority.
 - 4. Where use of an alternative material involves redesign of or changes to other parts of the work, the cost and the time required to effect such redesign or changes shall be considered in evaluating the suitability of the alternative material. No additional cost will be paid by the Authority as a result of the Contractor's selection in using alternatives.
 - 5. No test nor action relating to the acceptance of substitute materials shall be made until the request for substitutions is made in writing by the Contractor, accompanied by the complete data as to the quality of the materials proposed. Such request shall be in ample time to permit approval without delaying the work.
 - 6. Whenever classifications, rating, or other certification by a body, such as UL, NEMA, or AREA, is part of the Specification for any material, Proposals for use of alternative materials shall be accompanied by reports from the listed or equivalent independent testing laboratory indicating compliance with Specification requirements.
 - 7. The Contractor shall reasonably demonstrate that an adequate supply of materials, repair parts, and specialties of its own design and manufacture, as well as materials, repair parts, and the specialty parts of the Subcontractors, will be available promptly as the need by the authority may arise.
- C. It shall be understood that specifying a brand name, components, and/or equipment in this Specification shall not relieve the Contractor from its responsibility to produce the product in accordance with the Contractual requirements.
- D. The Contractor is responsible for notifying the Authority of any inappropriate brand name, component and/or equipment that may be called for in the Specification, and to propose a suitable substitute for consideration.

5.3. Storage of Material and Preparation for Delivery

- A. All material intended for use on these Vehicles shall be marked and stored in the Contractor's plant so as to be readily identified, and shall be adequately protected during handling and storage.
- B. Certificate of In-Plant Inspection and Release for Shipment:
 - 1. Unless specifically excepted by the Contract Documents, and additionally at the sole discretion of the Authority, each Vehicle shipped from the Contractor's plant to the Authority shall be complete, ready-to-run.
 - 2. Prior to the shipment of each Vehicle, the contractor shall obtain a "Certificate of In-Plant Inspection and Release for Shipment" signed by the Authority's Inspector, or other authorized representative at the Contractor's plant. The "Certificate" shall certify that, in the judgment of the Inspector, the Vehicle is complete and complies with the approved Contractor's drawings and samples, and other agreed upon conditions for shipment. The "Certificate of In-Plant Inspection and Release of Shipment" shall not, however, be construed nor inferred to constitute to any degree Vehicle acceptance by the Authority. The Contractor shall allow one (1) working day for the Authority's Inspector to complete inspection of each vehicle prior to shipment.
 - 3. In the event that Vehicles are complete and ready for shipment prior to the delivery dates specified in the Contract, the contractor shall so notify the Authority. At the Authority's option, the Vehicles may be shipped.
- C. Preparation for Delivery:
 - 1. All parts that must be removed to permit shipment and those items not permanently secured to the Vehicle shall be securely boxed to prevent damage and shipped in the locked Vehicle to which they belong.
 - 2. If shipped by sea, all Vehicles or components thereof shall be enclosed to protect against damage from handling or from exposure to the marine environment.
- D. Delivery:
 - 1. The Contractor shall complete and deliver all equipment, materials, and Capital Spare Parts/Training Aids as defined in the Contract Documents, to the MBTA location to be designated and confirmed by the Technical Project Manager prior to shipping release. Delivery shall be made per the schedule shown in Technical Specification VE21-054 *Table 1* and in conformance with this RFP.
 - 2. From the time the Vehicles arrive on the Authority's property until such time as the Vehicles are accepted by the Authority for passenger service, the Contractor will be charged at the prevailing rates of the Authority if any work is performed on behalf of the Contractor.
 - 3. Should the Authority allow Vehicles to be shipped onto its property with retrofit work to be done, the Vehicles shall not be considered delivered until the Contractor has completed all such work. The Contractor shall be responsible for all Vehicle related costs incurred during the "shipment", "receipt" and delivery of the Vehicle.

5.4. Receipt of Contractor Furnished Equipment and Materials

- A. Receipt of Vehicles:
 - 1. Each completed Vehicle shall be received on its own wheels at the Contractor's Local Commissioning/Testing Facility. Each Vehicle will then be examined jointly by representatives of the Authority and the Contractor. The Authority will then issue a "Receiving Inspection

Report” to the Contractor which will acknowledge receipt of the Vehicle and furnish appropriate notation as to its apparent “As-Received” condition. The “Receiving Inspection Report” will be signed by the Authority’s representative and the Contractor’s representative to attest to the stated condition of the Vehicle.

B. Receipt of Spare Parts Material:

1. Spare Parts and other Materials shall be received by the Authority’s Receiving Department who shall prepare and sign a Receiving Report describing any missing parts or damage that may have occurred during shipment.
2. Notwithstanding the foregoing, the Contractor shall bear all risks of loss to each item until the same is delivered to the Authority as designated above.
3. On receipt of any such report which identifies a short shipment or damaged item, the Contractor shall promptly replace any missing or damaged equipment and material to prevent delay of the project.

5.5. Acceptance of Vehicles

- A. All Vehicles, including the Pilot Vehicle, shall successfully complete all testing as specified in the Technical Specifications VE21-054. All costs related to acceptance testing will be the responsibility of the Contractor.
- B. If, during Conditional Acceptance inspection, the Authority determines that a Vehicle is suitable for operation in passenger service, but that it is not totally responsive to the Specification requirements such that substantial delay might be incurred in implementing required corrective action, the Authority may, at its discretion, issue a “Certificate of Acceptance” for the Vehicle for mutual execution by the Authority and the Contractor. Such accepted Vehicles shall then be available to the Authority for use in passenger service until such time as the Contractor is able to initiate and execute the necessary corrective action.
 1. Such Acceptance shall not negate the Contractor’s eligibility for achieving a milestone payment in accordance with the Schedule of Partial Payments (Section 7.5).
 2. Warranty commences to run upon Acceptance into passenger service in accordance with (section) except for those parts requiring corrective action.
 3. In addition to the foregoing costs, retrofit or modification work performed by the Authority shall be charged to the Contractor at the Authority’s prevailing labor rates (including overhead) in effect at that time.
- C. Should the Authority experience delays in its Vehicle acceptance program attributable to the Contractor because of defective materials, workmanship or design, no more than four unaccepted Vehicles will be permitted on the Authority’s property.

5.6. Final Acceptance of Vehicles

- A. When all corrective actions and retrofits, if any, have been fully completed, and the Vehicle is considered by the Authority to be in full compliance with the contract, the Certificate of Final Acceptance will be executed by the Contractor and the Authority.
- B. Acceptance by the Authority will be made in writing.

5.7. Patented Devices, Materials, Processes

- A. In the performance of this Contract the Authority has required the Contractor to furnish certain equipment, components, materials and supplies which may be either items designated by brand name or other items.
- B. For items not designated by brand name, the Contractor warrants that the products furnished shall be delivered free of any rightful claim of a third party for infringement of any United States or foreign patent.
 - 1. If the Contractor notifies the Authority in writing and if the Authority provides authorization, information, and assistance, the Contractor shall defend, or may settle, at its expense, any suit or proceeding against the Authority so far as based on a claimed infringement which would result in a breach of this warranty.
 - 2. The Contractor shall pay all damages and costs awarded against the Authority due to breach.
- C. In case any product, or any part thereof, is in such suit held to constitute an infringement and the use for the purpose intended of such product or part is enjoined, the Contractor shall, at its expense and option, either procure for the Authority the right to continue using said product or part, or replace with some non-infringing product or part or modify same so it becomes on-infringing, or remove the product and refund the purchase price, less reasonable depreciation for any period of use and any transportation costs separately paid by the Authority. In the event of removal this should not render the vehicle inoperable.
- D. After termination of the guarantee applying to the last Vehicles delivered, the Authority will assume the right to manufacture, or cause to be manufactured, any assembly or component for its sole use in maintaining Vehicles without incurring any obligation to pay any royalties or fees in relation to a letter of patent or copyrights. Except for patented devices, the Contractor shall not have exclusive proprietary rights pertaining to the design of the vehicles.
- E. The Contractor shall grant to the MBTA, its authorized successors and assignees, a perpetual fully paid, royalty free, non-exclusive and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use, the End Product for MBTA's purposes of operating, maintaining, and repairing Vehicles.

5.8. Warranties, Guarantees, Instruction Sheets and Parts List

Manufacturer's warranties, guarantees, instruction sheets, and parts list, which the Engineer requires to be furnished, shall be delivered to the Engineer per the Technical Specification Contract Deliverables Schedule, TS Attachments, and RFP requirements.

5.9. Spare Parts

- A. General: The Contractor shall guarantee the availability of replacement parts for the Vehicles for a minimum of seventeen (17) years after the date of acceptance. Spare parts shall be interchangeable with the original equipment and shall be manufactured in accordance with the Quality Assurance Provisions in this Contract.

Should a part not be available through the Contractor for which there is not competitive equivalent available in the marketplace, the Contractor agrees to assist the Authority with drawings and specifications to facilitate the component procurement by the Authority.

All Spare Parts, Capital Spares, and Consumable Spare Parts shall adhere to the following bar code requirements. All bar codes will be in Code 39 (according to ANSI standards). All assemblies,

subassemblies, and components shall have an identification label, which contains a part number, serial number, and bar code of vendor part number and sequential serial number. The label life expectancy shall be the same as the part to which it is attached.

Each spare part or other material shall be clearly and precisely labeled. The Contractor shall notify an individual designated by the Authority, prior to shipment of any item (i.e. spares, manuals, mock-ups, test equipment, etc.)

- B. Capital Spares: The Bidder shall provide prices for the furnishing and delivery of Capital Spares in the Price Response. The Authority reserves the right, within two weeks after delivery of the Pilot Bus, to confirm the quantity and Capital Spare line items that are to be provided.

As a result of any design modifications confirmed and approved during Pilot Bus testing, the Authority reserves the right to negotiate the Capital Spares to be supplied within the cost parameters established in the Price Response, as required. It is the Authority's intent to minimize the need to retrofit Capital Spares. Any retrofit, if so required, is to be implemented at the Contractor's expense prior to delivery to the Authority.

1. The Bidder shall confirm that the line items per Capital Spares identified under Price Proposal, are the recommended support inventory for the vehicles supplied. If an item listed is not required by the vehicle being supplied by the Bidder, the designation "NR" is to be inserted where applicable.
2. Delivery of the Capital Spares shall be made to the Authority in the Boston area at a site to be designated. Notwithstanding the foregoing, the Contractor shall bear all risk of loss until the units are delivered to the Authority.

Delivery details shall include the following:

- Part Number information and Vendor/Manufacturing/Supplier name if not directly produced by Contractor
- Unit price per line item (note: if providing any spares or parts under designated "Vehicle Set/Bus Set/etc." the Contractor shall provide details (part numbers, vendor service, line item quantities, unit pricing of line items and other related data) for the purposes of the Authority's asset inventory reconciliation.

Upon completion of the Pilot Bus acceptance testing at MBTA, the Contractor shall submit for the Authority's approval, a delivery schedule for the Capital Spares. Shipment of the Capital Spares shall commence with the acceptance of the Pilot Bus and must be completed no later than three (3) months after Pilot Bus Acceptance.

3. The Contractor shall submit, as part of the Final Design review meeting, an additional list of recommended Capital Spare Parts, if so required, to maintain the fleet, identifying the vendor's name and address, vendor part number, full part description, unit cost, anticipated lead time, and estimated annual usage. **(CDR 36)**

The Authority reserves the right to adjust the quantities listed.

Note: The price paid by the Authority for a Capital Spare and/or other Spare will, in no event, exceed the published parts price, where applicable.

4. Spare Parts shall be interchangeable with the corresponding part numbers. All spare parts shall be reconfigured to the latest revision during the warranty period. The Bidder/Contractor shall make all efforts to have available at least two U.S. sources for spare parts that are exchanged regularly during preventative maintenance. The Contractor shall also endeavor to have other spare parts available from U.S. sources.
 - Packaging shall consider the reliability of the parts and the requirements for inspection and inventory (e.g., the packaging selected to highly reliable parts shall be such that the parts can be identified, inspected, stored for long periods, and endure multiple inventories.
 - Requirements – the Bidder shall submit a recommended Spare Parts list which includes the following:
 - Grouping by system, subsystems, as applicable for stocking identification
 - Generic name, trade name, description, Contractor's part number, contract price, manufacturer/vendor/supplier's names and part numbers (if not directly produced by Contractor), drawing references, and correlation with maintenance manuals.
 - Correlation of recommended quantities with reliability requirements and lead time basis of the following classifications:
 - Wear: parts that may be expected to require regular replacement under normal maintenance schedules
 - Consumables: parts with an expected life of less than one year based upon expected annual mileage of 50,000 miles per bus
 - One Shot: parts that normally require replacement after performing their function one time
 - Long Lead: parts that are not readily available from distributors or manufacturers
 - Exchange Assemblies: assemblies that will be exchanged with failed units (or units that are not responding as specified) on the supplied equipment and that must be inventoried as complete assemblies
 - A cross-reference and indexing system for replacement components common to more than one system or subsystem. Such components will have only one part number.
- C. Consumable Spare Parts: The Contractor shall submit a list of recommended Consumable Spare Parts as outlined in the Technical Specification VE21-054.
- D. Complete Suggested Parts Inventory List: The Contractor shall submit a complete suggested parts inventory list, required to support this fleet with price detail to determine the total cost required as outlined in the Technical Specification VE21-054. This list must include parts that are not in inventory, as well as parts need to support this fleet.
- E. Contractor shall be prepared to support the Pilot Vehicle's testing as defined per Specification with appropriate spares and/or other materials as required.
- F. Other Required Items: All other items or materials not defined.

5.10. Training Aids

- A. The Contractor shall refer to Technical Specification VE21-054, Section 5.6.4 for Training Aid requirements and provide prices as required in the Price Response for the furnishing and delivery of Training Aids.
- B. The Training Aids are to be delivered prior to commencement of the Training Program.
- C. Delivery of Training Aids shall be made to the Authority at a site to be designated in the future. Notwithstanding the foregoing, the Contractor shall bear all risk of loss to each unit until the same is delivered to the Authority.

6. CHANGE ORDERS

6.1. Proposed Changes in Work Scope (Change Orders)

- A. MBTA may, at any time, direct and implement changes in work scope within the general scope of this Contract by issuing a written Change Order.
- B. The Contractor must promptly make such additions, deletions, or changes in the work when and as ordered in writing by MBTA.
- C. The Contractor may, at any time, submit to MBTA in writing, for review and acceptance or denial, proposed modifications to the Contract Documents which will benefit MBTA.
 - 1. MBTA will review and may accept such modifications. Upon acceptance by MBTA of the proposed changes, MBTA will execute and issue a Change Order.
 - 2. Denial of a proposed modification will neither provide the Contractor with any basis for claim for damages nor release the Contractor from contractual responsibilities.
- D. Unless specifically noted in the Change Order, a change in work will not extend the time of completion of the Contract, change the Contract Price, nor amend the terms and conditions of the Contract Documents.
- E. Where changes require the cooperation of one or more Manufacturers or Suppliers, the Contractor is responsible for such changes and must inform the Manufacturers and Suppliers accordingly, and the changes must be incorporated in all Vehicles unless otherwise agreed to by MBTA.
- F. MBTA's apparent waiver of, or failure to enforce, the provisions within RFP Section 6 for any change in scope of work is not a waiver of requirements of this Section for any other change.

6.2. Costs for Work Scope Changes

- A. Upon receipt of an issued Change Order, the Contractor must, within ten (10) working days, give written notice to MBTA with preliminary determination of how the proposed changes will impact the Project Schedule or Contract Price.
- B. Within 30 days of receiving the Change Order, the Contractor must submit a written Notice to MBTA containing the following information:
 - 1. Description of change and details of work to be done.
 - 2. A statement and justification for any additional time required for the completion of the Contract by reason of the Change Order. The statement of additional time must include a detailed schedule analysis identifying which schedule activities and key milestones are impacted.
 - 3. Comprehensive detail on pricing and costing for Change Order, as per the following:

- a. Prices must comply with the standards of the Federal Acquisition Regulation (FAR) Part 31 and be based on generally accepted cost standards as established under the (FAR), to include material, labor, overhead and profit.
 - b. The cost detail should be comprehensive and readily traceable into the Contractor's accounting records and underline supporting documentation.
 - c. The Contractor's profit must be disclosed separately, so that a judgment can be made relative to the reasonableness given the technical level of work and the associated risk.
 - i. Profit will be allowed up to a maximum of 10% of the direct cost elements for labor, fringe benefits, and overhead; and up to a maximum of 5% for direct cost elements of material, equipment and other.
 - d. Prices shall be quoted in United States of America dollars (no cents) on a per vehicle basis.
 - e. The comprehensive detail shall include specific information for each type of cost.
 - i. The analysis for labor shall disclose hours by phase/function and total for each employee category. Total hours for each employee category shall be multiplied by the appropriate actual pay rate to compute total labor cost.
 - ii. Materials must be analyzed by type with full description, number of units, unit cost, hours used, hourly cost rate, and total costs.
 - iii. Equipment must be analyzed by type with full description, hours used, hourly cost rate, and total costs.
 - iv. Fringe benefits and overhead rates must be supported by comprehensive computations. Fringe benefit costs must be supported by union agreement rates or company policy. Overhead costs must be supported by audited financial statements.
 - f. Estimated costs shall be approved subject to auditing actual costs at the completion of performing change order services.
- C. Whenever the estimated cost of a change or series of related changes exceeds \$100,000, the Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change.

6.3. Change Order Authorization

- A. A Change Order must receive the written acceptance of the Contracting Officer if it involves:
 - 1. A change to the project timeline or Project Schedule;
 - 2. A change to the Contract Price; or
 - 3. A substantial technique change, including any departure from the Technical Specification or any change to accepted material, design, or equipment.
- B. The Contractor must not proceed with any work out of the scope of the Contract until MBTA gives written authorization.
- C. MBTA will not accept any responsibility for work or services performed without proper authorization.

6.4. Executed Change Orders and Amendments

- A. All Change Orders must be executed in accordance with the terms and conditions of the Contract Documents and the Authority's Policies and Procedures.
- B. All executed Change Orders will become part of the Contract and will constitute the entire agreement between the Authority and the Contractor with regard to any and all costs and time extensions related to Change Order work.
- C. All terms and conditions of the Contract Documents, including the Specifications, remain as previously stated unless so noted in the text of an executed Change Order.
- D. The Contractor must issue invoice for executed Change Order(s) on a per vehicle basis at the milestone corresponding to the Conditional Acceptance of said Vehicle or at the Conditional Acceptance of the incorporation of the defined workscope, whichever occurs last. Payment will be made in accordance with RFP Section 7.

6.5. Change Status Report

The Contractor shall maintain a record of all Engineering and contractual Change Orders that have been submitted and/or accepted by the Authority.

- A. Changes must be logged and listed on a Change Status Report that identifies the action taken on each change. The Change Status Report shall be updated at least monthly and copies submitted to the Chief Procurement Officer, the Project Manager/Engineer, and the Consultant.
- B. A separate report shall be prepared and updated quarterly showing the original and revised Contract cost per vehicle delineating all additions on a per item and per Change Order basis, with the format of the report to be approved by the Chief Procurement Officer.

7. SCHEDULE AND PAYMENTS

7.1. Basis for Payment

Basis for payment shall be as follows:

In the event the Contractor has subcontracted any of the work, prior to final payment, the Contractor shall furnish valid Waiver and Release of Lien documents in a form acceptable to the Authority for the work performed or the equipment or material furnished by each Subcontractor.

The acceptance by the Contractor for the final payment shall operate as and shall be a release of the Authority and every member, agent, and employee thereof, from all claim and liability to the Contractor for anything done, furnished for, or relating to the work, or for any act or neglect of the Authority or any person relating to or affecting the work.

Note: The payment of the final Milestone under Section 7.5 will not be processed until all open issues have been resolved.

Payment for the vehicles will be made by ACH, check, or wire transfer within thirty (30) days following the 30-day trial period (RFP 9.1 B) and after receipt of properly prepared Contractor's invoice and upon completion of the milestone corresponding to the payment due.

The Authority shall make all payments to the Contractor in United States Dollars. Milestone Payments will be made with the approval of the MBTA Project Manager for this project.

Milestone payments shall be achieved and become eligible for payment only in the sequential order listed in Section 7.5.

Milestone payments will be made based upon a percentage of work completed. The Contractor shall certify at the completion of each milestone the amount of cumulative actual cost incurred by the Contractor. The Contractor shall separately itemize all payments made and cumulative cost incurred by its subcontractors performing work under this Contract with each milestone certification.

The Contractor will adjust the overall price and corresponding milestone invoices to reflect any executed change orders.

If a vehicle does not meet all of the requirements set forth in the Technical Specifications, the Authority may, at its exclusive option, "Conditionally Accept" the vehicle and place it in passenger service pending receipt of Contractor furnished materials and/or labor necessary to effectuate corrective action.

In no event shall the amount of invoices to the Authority at the time of each milestone exceed 100% of the cost incurred by the Contractor to that date. If an audit should disclose any invoices that exceed 100% of the costs, this excess shall be returned to the Authority and shall be remitted to the Contractor at such time as those costs are incurred.

In order for payments to be issued, the Contractor must have submitted all required progress reports, schedules, tracking documents, and other periodic deliverables, as stated herein or in Technical Specification No. VE21-054, within the 30-day period before invoice submittal.

Failure by the Contractor to maintain an effective project team and/or to manage the project progress shall be considered cause for withholding milestone payments.

Prompt Payment Mechanism. *The Contractor agrees to pay each subcontractor under this Contract for satisfactory performance of work completed no later than ten (10) business days from the receipt of each payment the Contractor receives from the MBTA. The Contractor agrees further to return any retainage withheld within thirty (30) days after the subcontractor's work is fully and satisfactorily completed. Any delay or postponement of payment from the above-referenced time frame may occur only for good cause following written approval of the MBTA. Failure by the Contractor to comply with these requirements is a material breach of this Contract, which may result in the termination of this Contract or other such remedy as the MBTA deems appropriate.*

7.2. Post-Delivery Test

The Authority shall conduct acceptance tests on each delivered bus including all testing required by the Authority's safety oversight agency. The purpose of these tests is to identify Defects that have become apparent between the time of bus release and delivery to the Authority. The post-delivery tests shall include visual inspection and bus operations.

Visual Inspection: The post-delivery inspection is similar to the inspection at the Contractor's plant and shall be conducted with the bus in a static condition. Any visual delivery damage shall be identified and recorded during the visual inspection of each bus.

Bus Operation: Road tests will be used for total bus operation similar to those conducted at the Contractor's plant. In addition, the Authority may elect to perform chassis dynamometer tests. Operational deficiencies of each bus shall be identified and recorded.

All acceptance testing will be performed at the Contractor's Local Commissioning/Testing Facility as defined in RFP Section 4.4.

Within fifteen (15) calendar days after arrival at the designated point of delivery, the bus shall undergo the Authority post-delivery tests as defined in Technical Specification No. VE21-054. If the bus passes these tests, acceptance of the bus by the Authority occurs on the fifteenth (15th) day after delivery. Acceptance may occur earlier if the Authority notifies the contractor of early acceptance or places the bus into passenger service. If the bus fails these tests, it shall not be accepted until the repair procedures have been carried out and the bus retested until it passes. Buses must pass Massachusetts Motor Vehicles Codes of Inspection and Massachusetts Department of Telecommunications and Energy requirements.

7.3. Field Service Engineering Support

- A. The Contractor shall furnish the services of one or more, as mutually agreed upon, qualified, factory trained, English-speaking, Field Service Engineer(s) promptly when requested by the Authority for assistance during inspection, operation, testing and adjustment of the Contractor furnished equipment, to insure satisfactory performance, and to advise a reasonable number of the Authority's employees in the proper use and care of the equipment. Actual work schedule will be established on a monthly basis but will be flexible enough to allow for training and technical support to allow for a 24 hour a day, 7 day a week operation.
- B. The Contractor shall provide a full time Field Service Engineer to participate in all Pilot Bus tests, for each Pilot bus, for the full duration of the TS 4.11 Pilot Bus Program. The Contractor's Engineer shall provide daily technical and progress reports to the Authority Project manager.
- C. The Contractor shall have a Field Service Engineer available, within twenty-four (24) hours of receipt of request for service, during a time period from delivery of the first vehicle to Final Acceptance of the final vehicle, and within seventy-two (72) hours of receipt of request for service during the warranty period.
- D. The Contractor shall supply, upon request by the Authority, the design engineer(s) of equipment failing to comply with the Contract and Technical Provisions. Said engineer(s) shall be available by cell phone and shall attend and participate in meetings, recommend solutions and, if requested by the Authority, shall assist in implementing these solutions.
- E. The Contractor shall have at least one qualified instructor who shall be on the Authority's property during the time the Pilot Buses are in Boston. Additionally, the Contractor shall also have available at the Authority's property at least one qualified instructor during the first fifteen (15) day of passenger service of the production fleet, that is, with the acceptance of Bus No. 3.
- F. The Field Service Engineer may be utilized by the Contractor to prepare warranty reimbursement documentation, shipping manifest for warrantable components and the collection of other appropriate documentation available from Authority records for up to one hour per day in accordance with RFP

Section 9.12. If at any time these assignments require more than five (5) hours per week, then the Contractor shall provide additional staff to the Authority for these purposes.

G. The cost of the Field Service Engineer(s) shall be included in the Contract Price.

Compliance with Section 7.3 A - G (above) does not relieve the Contractor of responsibilities under Technical Specification VE21-054 and RFP Section 9.

7.4. Field Service Technical Support

A. The Contractor shall provide a qualified, factory trained, English-speaking Technical Specialist/Analyst, during a time period beginning with the delivery of the first pilot vehicle and ending two years after the Final Acceptance of the final production vehicle and will be stationed at a maintenance facility of the Authority's choosing. The Technical Specialist/Analyst shall be well versed in all aspects of the Battery Electric Bus being procured and shall have duties as assigned to include technical support, technical assistance, provide on-the-job training, warranty review and analysis, failure mode tracking and documentation; data entry of Contractor, Contractor representatives, and Sub-Contractors, into the Authority's data system; reliability tracking, materials consumption, trend analysis, liaison to component manufacturers and OEM technical support with a focus on advancing the reliability and availability of the procured bus fleet. The actual work schedule will be established on a weekly basis but will be flexible enough to allow for reassignment as required by the Authority for a 24 hour a day, 7 day a week operation. In the event of a vacancy, the Contractor shall submit to the Authority resumes of qualified replacements for review and consideration. The Contractor shall be required to fill the position within ten days from the beginning of the vacancy.

B. The cost of the Technical Specialist/Analyst shall be included in the Contract Price.

7.5. Schedule of Partial Payments

The Contractor is required to submit a Proposal Price based on the following Payment Schedule for Buses:

Milestone	Incremental Payment %	Total Payment %	Milestone Description
A	1%	1%	Approval: Project, Production & CDR Schedules & QA Program plan
B	1%	2%	Completion of all Design Review meetings
C	2%	4%	Closure of all Design Review issues
D	5%	9%	Acceptance of Both Pilot Buses (milestone D1 and D2 includes the price of the 2 Pilot buses)
E	84%	93%	Acceptance of Production Buses (paid in groups of 4)
F	2%	95%	Resolution of all open Technical, Commercial, and Administrative issues with the exception of Warranty

G	4%	99%	Warranty to be paid in four equal installments of 1% as noted: <ul style="list-style-type: none"> • G-1: 1% paid 6 months following the acceptance of the last bus • G-2: 1% paid 12 months following the acceptance of the last bus • G-3: 1% paid 18 months following the acceptance of the last bus • G-4: 1% paid 24 months following the acceptance of the last bus
H	1%	100%	Vehicle Availability Performance pool dispersed quarterly during the two year bus evaluation period. (RFP Section 7.7)

Notes:

- (1) The above “Incremental Payment %” shall be based upon the Base Proposal Price plus an Optional Work Scope that is exercised by the Authority (Section 1.1), as extended for 45 buses
- (2) Upon delivery of each bus, the Contractor shall submit a separate detailed payment invoice listing (with appropriate documentation attached)
- (3) The Authority reserves the right to withhold individual milestone payments or some portion thereof in the event that the Authority incurs extra costs not associated with liquidated damages and such costs are directly attributable to the Contractor’s performance or lack thereof. Total extra costs for related labor, materials, equipment, and/or consultants will be withheld.

7.6. Liquidated Damages

Schedule adherence, vehicle reliability, vehicle availability, and product support, are important to the Authority as much as the quality of the work and the price. It is agreed that this Section shall be construed and treated by the parties to the Contract not as imposing a penalty upon the Contractor for failing fully to complete the work as agreed in the proposal nor as it may have been intended, but as liquidated damages to compensate the Authority for all costs incurred by the Authority because of the failure of the Contractor to fully complete the certain provisions of the Contract as adjusted.

For the purposes of RFP Section 7.6 and the assessment of Liquidated Damages, the guarantee period shall mean the same as the warranty period. Liquidated Damages shall be assessed through a time period ending 24 months following the acceptance of the last bus.

A. Contract Delivery Requirement Factor – Liquidated Damages shall be assessed for failure to meet the delivery schedule for each bus as noted in Section 4.3 Delivery.

The amount of agreed liquidated damages to be deducted per weekday from the Contract price for failure to complete delivery of the Vehicles as specified herein shall be five hundred dollars (\$500) per day per Vehicle. These liquidated damages shall be applied to each Vehicle for each and every weekday it is delayed beyond the delivery time schedule, or Authority approved schedule revision, as specified in Section 4.3 of the Contract Documents.

When delay occurs due to reasonable causes beyond the control of the Contractor, including but not limited to, acts of God, acts of government or any governmental agency, war or war conditions, riot or civic conditions, sabotage, strikes, lockouts, accidents, fire, flood, typhoons, hurricanes, explosions, damage to plant, equipment, or facilities, the time for performance and completion of the work shall be

adjusted and extended as required to accommodate the delay and its effect. The Authority shall require the Contractor to provide documentation substantiating any requested claim for delay.

Permitting the Contractor to continue to deliver Vehicles after the time fixed for its completion, or after the date to which time for delivery may have been extended, shall in no way operate as a waiver on the part of the Authority of any of its rights under the Contract.

- B. **Technical Assistance** - Liquidated damages shall also be claimed during the guarantee period in the event the Contractor fails to make available to the Authority, qualified personnel to provide technical assistance to correct defects in either its equipment or the equipment furnished by the Subcontractors. Whenever the Authority discovers a defect that is of such a nature as to require that a Vehicle be withheld from passenger service, the Technical Project Manager or designee will verbally advise the Contractor of the problem, and the Contractor will be granted no more than forty-eight (48) hours to make available to the Authority such quantity of competent personnel as may be reasonably needed to initiate effective corrective action. If the Contractor fails to provide the technical assistance within forty-eight (48) hours after notification to the Contractor, the Authority shall assess against the Contractor an amount of three hundred dollars (\$300) per day per Vehicle for each and every day the Vehicle is out of passenger service, starting with the date Contractor was notified, until such time as the Contractor initiates work on such Vehicle during the applicable guarantee period.
- C. **Software and Firmware Support** - Liquidated damages shall also be claimed during the guarantee period in the event the Contractor fails to make available to the Authority qualified personnel to identify software and/or firmware deficiencies or necessary updates, fixes or patches; and develop, test, validate, provide, and install software and firmware revisions. Whenever the Authority discovers a defect that is of such a nature as to require that a Vehicle be withheld from passenger service or fleet defect trend is identified, the Technical Project Manager or designee will verbally advise the Contractor of the problem, and the Contractor will be granted no more than forty-eight (48) hours to make available to the Authority such quantity of competent personnel with software/firmware expertise in the affected system as may be reasonably needed to initiate effective corrective action; and no more than ninety-six (96) hours to implement corrective action.

If the Contractor fails to implement corrective action within ninety-six (96) hours, the Authority shall assess against the Contractor an amount of three hundred dollars (\$300) per day per Vehicle for each and every day the Vehicle is out of passenger service, starting with the date Contractor was notified, until such time as the Contractor implements corrective action on such Vehicle during the applicable guarantee period.

Material Availability – Liquidated damages shall also be claimed during the guarantee period in the event the Contractor fails to make available to the Authority an adequate quantity of materials/replacement parts and/or components necessary to correct defects in either its equipment or the equipment furnished by the subcontractors. Whenever the Authority discovers a defect that the Authority determines is of such a nature as to require that a vehicle be withheld from passenger service, the Technical Project Manager or designee will verbally advise the Contractor of the problem, and the Contractor will be granted no more than five (5) business days to make available to the Authority such quantity of materials as may be reasonably needed to implement effective corrective action. If the Contractor fails to provide the material, parts or componentry within five (5) business days, the Authority

shall assess against the Contractor an amount of three hundred dollars (\$300) per day per vehicle for each and every day the Vehicle is out of passenger service, starting with the date Contractor was notified, until such time as the Contractor initiates work on such Vehicle during the applicable guarantee period.

- D. Technical Specialist/Analyst Vacancy-** Liquidated damages shall also be claimed during the time period identified in RFP Section 7.4 in the event the Contractor leaves the Technical Specialist/Analyst position vacant for more than ten (10) consecutive days. The Contractor must submit resumes of qualified candidates to the Technical Project Manager for review and consideration; and have the Authority approved Contractor's employee imbedded at the Authority's maintenance facility prior to the end of the ten (10) day period. If the Contractor fails to imbed their Technical Specialist/Analyst at the Authority's maintenance facility after the ten (10) day period, the Authority shall assess against the Contractor an amount of two hundred dollars (\$200) per day for each and every day the vacancy is not filled with an imbedded, Authority approved, Contractor employee, starting with the first day the position was vacant.
- E. Warrantable Failure Centered Reliability -** Liquidated damages shall also be claimed during the guarantee period in the event a vehicle is unavailable for service due to warrantable failure beyond the threshold of ten days (cumulative) in a calendar month. The Authority shall assess against the Contractor an amount of three hundred dollars \$300 per day, per vehicle, for every day after the ten day threshold during that month the bus is out of service for warrantable failures During the evaluation time period the Authority and the Contractor shall meet at a minimum on a weekly basis to review daily vehicle availability reports and warrantable defects.
- 2) Warrantable vehicle failure is defined as any failure, defect, warranty repair/retrofit work, as covered per RFP Section 9
 - a) Warrantable vehicle, component, and/or software/firmware failure, which results in a bus being deemed out of service is an unavailable bus
 - 3) Availability shall be defined as:
 - a) The Authority's CMS reports will be the basis for evaluating availability
 - b) Must be available for service, in service, or active on the road, at 7:00 am daily
 - i) Available for service shall be defined as a bus that registers a 90% of maximum allowable SoC as recorded on the Authority's CMS (Charge Management System)
 - ii) Available for service also includes any bus that is active in service or on the road
 - iii) Available for service also includes any bus in use for training, testing, and any bus out of service for scheduled preventative maintenance
 - iv) Warrantable vehicle, component, and/or software/firmware failure, which result in a bus being deemed out of service is an unavailable bus
 - 4) The assessment shall be applied to each bus out of service for a warrantable failure. For example,
 - a) Bus 'A' out of service for warrantable issues for nine days during the month
 - i) No Section 7.6 (F) liquidated damages assessment for that bus
 - b) Bus 'B' out of service for warrantable issues for twelve days (cumulative) during the month
 - i) Section 7.6 (F) liquidated damages assessment of \$600 (2 days beyond threshold x \$300 per day) for that bus
- F. Daily Bus Availability** –Liquidated damages shall also be claimed during the guarantee period in the event Authority bus availability standards are not met due to warrantable failure. The Authority shall

assess against the Contractor an amount as specified in the *Daily Reliability Percentage LD Table* below, based upon an availability percentage tabulated daily, for all covered buses out-of-service for warrantable failures. During the guarantee period the Authority and the Contractor shall meet on a weekly basis to review daily vehicle availability reports.

- 1) Warrantable vehicle failure is defined as any failure, defect, warranty repair/retrofit work, as covered per RFP Section 9
 - a) Warrantable vehicle, component, and/or software/firmware failure, which result in a bus being deemed out of service is an unavailable bus
- 2) Availability shall be defined as:
 - a) The Authority's CMS reports will be the basis for evaluating availability
 - b) Must be available for service, in service, or active on the road, at 7:00 am daily
 - i) Available for service shall be defined as a bus that registers a 90% of maximum allowable SoC as recorded on the Authority's CMS
 - ii) Available for service also includes any bus that is active in service or on the road
 - iii) Available for service also includes any bus in use for training, testing, and any bus out of service for scheduled preventative maintenance
 - iv) Warrantable vehicle, component, and/or software/firmware failure, which result in a bus being deemed out of service is an unavailable bus
- 3) Availability shall be calculated and determined for each assigned facility
 - a) The Authority may assign buses to any of their maintenance facilities. As of the release of this RFP, the Authority projects buses may be assigned to upwards of two of their facilities.
- 4) The assessment shall be applied to each bus out of service for a warrantable failure
 - a) For example,
 - i) A fleet of 45 buses at Facility 'A' with 10 buses out of service for warrantable issues on a given day would result in an availability of 77.78% on that day. Per the chart below, an assessment of \$100 per bus, for a total of \$1000 (10 x \$100) would be applied for that day
 - ii) A fleet of 45 buses at Facility 'B' with 3 buses out of service for warrantable issues on a given day would result in an availability of 93.3% on that day. There would not be an assessment of liquidated damages applied for that day for Facility 'B'

Daily Reliability Percentage LD Table

<u>Lower bound Percentage</u>	<u>Upper bound Percentage</u>	<u>Daily Assessment per Vehicle</u>
80	84.99	\$ 50
75	79.99	\$ 100
70	74.99	\$ 150
65	69.99	\$ 200
60	64.99	\$ 250
0	59.99	\$ 300

- G. **Accrued Liquidated Damages** - At the authority's discretion there shall be deducted from any money due or to become due to the Contractor at the time of final payment, a sum representing the accrued liquidated damages. Such deductions may be cumulative across multiple metrics and shall not be considered a penalty, but as the agreed monetary damages sustained by the Authority because the Contractor:

- 1) Was unable to provide Vehicles per schedule delivery requirement, or
- 2) Was unable to provide Vehicles which fully met Authority reliability and availability standards, or
- 3) Did not provide required software and/or firmware support, or
- 4) Did not provide sufficient materials, or
- 5) Did not provide required technical resources.

Should the money due to the Contractor be insufficient to cover such agreed liquidated damages, then the Contractor forthwith shall pay the remainder to the Authority.

- H. **Total Liquidated Damages** - The maximum percent for all liquidated damages for all Vehicles shall not be in excess of 10% of the Total Contract Value as adjusted through Change Orders.

7.7. Vehicle Availability Performance (Milestone H)

Vehicle availability is paramount for the Authority to provide a high level of safe, reliable, and dependable, service to our customers. The Authority recognizes the challenges of implementing new technology and offers to the Contractor a financial acknowledgement if the delivered vehicles meet specified availability standards.

The Vehicle Availability Performance shall be based upon each bus as an individual and run for a two year evaluation time period commencing with the Authority's acceptance of each bus. During the evaluation time period the Authority and the Contractor shall meet on a weekly basis to review daily vehicle availability reports. Vehicle Availability Performance milestone evaluations shall be performed quarterly (at the end of each quarterly calendar period, e.g.; through the last week of March, June, September, and December) with any available award provided to the Contractor within thirty days following the quarterly review and per the standards of RFP Section 7.1

The Authority requires superior bus availability to meet all schedule requirements and to support any occurrences.

- (A) Availability shall be defined as
 1. The Authority's CMS reports will be the basis for evaluating availability
 2. Must be available for service, in service, or active on the road, at 7:00 am daily
 - a. Available for service shall be defined as a bus that registers a 90% of maximum allowable SoC as recorded on the Authority's CMS (Charge Management System)
 - b. Available for service also includes any bus that is active in service or on the road
 - c. Available for service also includes any bus in use for training, testing, and any bus out of service for scheduled preventative maintenance
 - d. Warrantable vehicle, component, and/or software/firmware failure, which result in a bus being deemed out of service is an unavailable bus
 3. Availability shall be calculated and determined for each assigned facility
 - a. The Authority may assign buses to any of their maintenance facilities. As of the release of this RFP, the Authority projects buses may be assigned to upwards of two of their facilities.
 - b. Each facility shall be calculated individually. One facility will not offset another.

A Milestone 'H' funding pool of 1% of the base proposal price plus exercised options (Section 7.55, Note 1) will be established for acknowledging superior bus availability.

(B) *For explanation and demonstration purposes only, and to simplify the examples in Section 7.7 (C), please reference the following scenario:*

1. If the base proposal price plus all exercised options for 45 buses equals \$4,500
2. Then Section 7.5 notes Milestone ‘H’ pool will be of 1% of the \$4,500 which equals \$45
3. The \$45 pool would be equally divided between all 45 buses which equates to a total of one dollar (\$1) available per bus for the duration of the evaluation period
4. This results in a maximum of twelve and one-half cents (\$.125) per bus per quarter

Vehicle Availability Performance shall be calculated based upon the assigned vehicle location (maintenance facility). Each facility shall be calculated individually. One facility will not offset another. During the evaluation time period the daily availability of each bus will be tabulated for each assigned facility. Calculated quarterly performance shall be based on the total number of achieved daily “available” buses for a facility as compared to total quantity of buses assigned to that facility. The calculations shall be performed on a daily basis for the three month quarterly period. Referencing the *Milestone H Adjectival Rating Table* chart below and assuming the quantity of buses was assigned to the facility for the *full* quarterly period, an example of a potential pool payment would be calculated as:

(C) Buses assigned to facility “A” (example 30 buses assigned during the full quarterly period) achieves 92% and facility “B” (example 30 buses) achieves 84% availability during a quarterly evaluation time period

1. Buses assigned to facility “A” would have achieved an Adjectival Rating of “Good” based upon 92% availability
 - a. The Contractor would be eligible to receive 50% of the \$1,250 quarterly per bus pool based upon the quantity of buses assigned to facility “A”
 - b. With 30 buses (and a “potential daily bus total” of 2,700 (30 buses @ 90 days) instances), facility “A” would be eligible to receive a partial payment totaling \$18,750 (50% of the full \$1,250 per bus quarterly pool) for that quarter.
2. Buses assigned to facility “B” would have achieved an “Unsatisfactory” Adjectival Rating based upon 84% availability
 - a. The Contractor would not receive any pool payment during that quarter for the buses assigned to facility “B”

Milestone H Adjectival Rating Table

Adjectival Rating	Quarterly Pool Available to be Earned	Availability Metrics Description
Excellent	100%	For each assigned facility the buses accepted by the Authority have achieved a 95% or greater availability rating as defined in Section 7.7 (A)
Good	50%	For each assigned facility the buses accepted by the Authority have achieved between 90% and 94.99% availability rating as defined in Section 7.7 (A)

Satisfactory	25%	For each assigned facility the buses accepted by the Authority have achieved between 85% and 89.99% availability rating as defined in Section 7.7 (A)
Unsatisfactory	0%	For each assigned facility the buses accepted by the Authority with availability as defined in Section 7.7 (A) less than 85%

7.8. Escalation of Pricing for OPTION 1 and/or OPTION 2 (Additional Vehicles)

Escalation is not applicable to any vehicle purchased through an Option, provided that Option is executed within one (1) year from Notice to Proceed for the Base Contract.

Escalation for vehicles purchased through an Option that is executed greater than one (1) year from Notice to Proceed for the Base Contract shall be determined as follows:

- a. The Unit Price quoted by the Bidder in its Proposal for Option Vehicles (including any executed Options) and as contained in any Contract issued pursuant to this Request for Proposal will be the “Base Price.”

For the purpose of this Escalation Clause, the Base Price will be adjusted to reflect any change which will be calculated based on the percentage change in the Producer Price Indexes, Bureau of Labor Statistics Department of Labor: Truck and Bus Bodies (Code 1413).

- b. The price of the Option 1 Vehicles shall be the unit price of the base order vehicles, (“Base Order Price”) adjusted by multiplying the Base Order Price by the following fraction:

$$\frac{\text{Latest Published Preliminary Index Number Prior to Notice of Exercise of Option 1}}{\text{Index Number on Effective Date of the Contract}}$$

- c. The price of the Option 2 Vehicles shall be the Contractor’s RFP Attachment 5 unit price of Option 2 vehicles (“Option 2 Base Price”), adjusted by multiplying the Option 2 Base Price by the following fraction:

$$\frac{\text{Latest Published Preliminary Index Number Prior to Notice of Exercise of Option 2}}{\text{Index Number on Effective Date of the Contract}}$$

- d. The Index shall be the Producer Price Index for Truck and Bus Bodies, Series No. 1413, published by the United States Department of Labor, Bureau of Labor Statistics, or if such Index is no longer in use, then such replacement that is most comparable to the Index as may be designated by the Bureau of Labor Statistics, or as agreed by the parties.

- e. Escalation – General:

The provisions of RFP Section 7.8 shall be for the sole exclusive measure of adjustments in compensation for inflation or deflation, without regard to actual changes in the cost of labor or materials, or use thereof, during the performance of this Contract.

In addition, prior to the escalation of any option equipment to be purchased under the terms of this Contract, the Contractor shall certify to the Authority, in writing, that the price to be paid does not exceed the price they have quoted to any other customer for similar equipment or for a comparable Vehicle that is similarly equipped to the Vehicle as specified herein.

8. TECHNICAL SPECIFICATION

Technical Specification VE21-054 and all TS Attachments is posted with this RFP on the Commonwealth of Massachusetts' COMMBUYS site, www.commbuys.com

9. WARRANTY

9.1. Guarantee of End Products (Warranty)

The Contractor shall guarantee the described work under the Technical Specification, VE21-054, and other Authority approved work on the buses as follows:

- (A) The complete bus (bumper-to-bumper) will be free from defects and related defects for one year or 50,000 miles, whichever comes first, beginning on the date of passenger service but not longer than 15 days after acceptance by the Authority.
- (B) Each bus shall complete a 30 day in-service trial period, beginning with vehicle acceptance. Any warrantable failure that results in a bus being 'unavailable for service', as defined in RFP Section 7.6 F (2), during this 30 day trial period will result in a reset of all warranty start dates.
- (C) The warranty is based on regular operation of the bus under the operating conditions prevailing in the Authority's locale.
- (D) Additional warranty coverage shall apply to subsystems and components as identified in Section 9.2.
- (E) All base and extended Warranty coverage includes the physical part as well as any related software or firmware
- (F) If a bus is removed from passenger service for more than 29 days for warranty/repair/retrofit work, the duration of the time the bus is removed from service shall extend the warranty period accordingly.
- (G) All retrofits for the remainder of the guarantee period or for one (1) year from the date of retrofit completion per bus, whichever period is greater.

All warranties shall not be prorated with the exception of extended or superior warranties that are passed on to the Authority. The Contractor shall pass on to the Authority any warranty, offered by a component supplier, that is superior to that required herein.

The Contractor shall guarantee the buses shall be in accordance with the Contract Documents when the buses are accepted and shall guarantee against defect due to faulty design, poor workmanship, or poor material during the foregoing respective periods of guarantee. If any part or parts thereof, prove defective either in design, materials,

or workmanship during the respective periods of guarantee, the Authority shall promptly notify the Contractor, and the Contractor shall repair or replace, as mutually agreed by both parties, such part or parts without expense to the Authority.

Any repair or retrofit work required to fulfill these guarantees shall be accomplished with minimum disruption to the Authority's operation and its maintenance facility; however, as a condition precedent to the Contractor's liability under the Guarantee and Warranty of End Product, the Contractor shall have been given notice of the defect(s), reasonable access to the defective part(s), and the defective part(s) shall not have been changed or altered without the Contractor's knowledge, whether by additions, subtractions or otherwise, in any manner whatsoever.

Due to the regular maintenance demands on Authority facilities and on the Authority's operation personnel, it may be possible to undertake only minimal adjustment, repair, or replacement work on equipment prior to Final Acceptance. The Contractor shall, in such an event, be responsible for securing facilities and personnel to facilitate all additional work required for the duration of the Contract.

9.2. Additional and/or Extended Warranty Coverage

The Contractor shall provide additional and/or extended warranty coverage as described below. All warranties are to begin on the date of passenger service but not longer than 15 days after acceptance by the Authority.

- a. Body, body structure, and structural elements of the suspension, are warranted to be free from Defects and Related Defects for three years or 150,000 miles, whichever comes first.
- b. Composite flooring materials and installation are warranted to be free from Defects and Related Defects for 14 years or 500,000 miles, whichever comes first. Mounting blocks and plates shall also be warranted to be free from Defects and Related Defects for 14 years or 500,000 miles, whichever comes first.
- c. Primary load-carrying members of the bus structure, including structural elements of the suspension, are warranted against corrosion failure and/or Fatigue Failure sufficient to cause a Class 1 or Class 2 Failure for a period of 14 years or 500,000 miles, whichever comes first.
- d. ESS (Energy Storage System) to include the high voltage battery packs, all battery pack enclosure internal components, battery pack enclosure, internal enclosure thermal management system components, and high voltage battery management system (BMS) components, shall meet any requirements of Technical Specification VE21-054, be free from Defects and Related Defects, and shall not be deemed to be at WEOL (per TS VE21-054), for seven years or 350,000 miles, whichever comes first. Any ESS not meeting the requirements of Technical Specification Section 8.5 shall be deemed to be at WEOL (Warrantable End Of Life) and shall be replaced with new under warranty by the Contractor with an ESS of equal or greater advertised capacity and shall be of the latest design. An ESS reaching the OEM's gross discharge thruput limit shall be replaced under warranty by the Contractor. The Contractor shall provide documentation demonstrating a correlation and relationship between their SoH calculations and the operating and range requirements of Technical Specification Section 8.5 and shall provide to the Authority monthly SoH reports for each ESS for a period of 14 years.

- e. Propulsion system components including the drive unit, generators, propulsion control equipment, and drive axles shall be warranted to be free from Defects and Related Defects for six years or 300,000 miles, whichever comes first. The propulsion system manufacturer's standard warranty, delineating items excluded from the Extended Warranty, should be submitted in accordance with the Request for Pre-Offer Change or Approved Equal or with the Form for Proposal Deviation.
- f. Steering axle and components, steering gear and angle box, shall be warranted to be free from Defects and Related Defects for six years or 300,000 miles, whichever comes first.
- g. Air compressor assembly including drive motor, couplings, compressor, heat exchanger, mounts, piping, software, and firmware, shall be warranted to be free from Defects and Related Defects for five years or 250,000 miles, whichever comes first.
- h. HVAC system components shall have a five year or 250,000 mile warranty for all HVAC system components including: roof and/or rear main unit (s), compressor(s), pumps; floor heaters, front defroster, evaporator, condenser, floor heater, defroster, drivers blower fans, fan motors, and fan drivers/control modules. (evaporator and condenser core warranty in (k) below.
- i. Other subsystems shall be warranted to be free from Defects and Related Defects for two years or 100,000 miles, whichever comes first. Other subsystems are listed below:
 - 1. Brake system: Foundation brake components, including adjusting mechanisms, as supplied with the axles, excluding friction surfaces.
 - 2. Destination signs: All destination sign equipment for the front, side and rear signs, power modules and operator control.
 - 3. Door systems: Door operating actuators and linkages.
 - 4. Air dryer.
 - 5. Mobility Device/Wheelchair ramp system: Lift and/or ramp parts.
 - 6. Low voltage batteries and low voltage charging/battery management system components
 - 7. Fire suppression: Fire detection and suppression system including all sensors, tank, and extinguishing agent dispensing system.
 - 8. Hydraulic systems: Including power steering pump, motor, and mount components
 - 9. Power electronics including converters and inverters
 - 10. Passenger seating excluding upholstery.
 - 11. Fuel storage and delivery system.
 - 12. Surveillance system including cameras and video recorders.
 - 13. Communications Equipment.
 - 14. Thermo King GPCO Air Purification System
- j. The following subsystems shall be warranted to be free from Defects and Related Defects for four years or 200,000 miles, whichever comes first, beginning on the date of passenger service but not longer than 15 days after acceptance by the Authority.

1. Thermal Management Systems and components: Heat exchangers including cores, heat exchanger tanks, fans and motors, surge tank(S), mounts, and related framework
 - a. Applies to ESS thermal management system (external to battery enclosure), drive unit, propulsion control, and voltage/power supply thermal management systems
- k. The following subsystems shall be warranted to be free from Defects and Related Defects for 14 years or 500,000 miles, whichever comes first, beginning on the date of passenger service but not longer than 15 days after acceptance by the Authority.
 1. Low-voltage and high-voltage cabling, electrical wiring and harnesses
 2. HVAC evaporator and condenser cores
 3. Bus structure

9.3. Energy Storage System (ESS) Optional Extended Warranty

The Authority requests option pricing (Option 3) for an extended warranty on the Energy Storage System (ESS) inclusive of all items covered in RFP Section 9.2 (d). The Energy Storage System (ESS) under this extended warranty shall meet any requirements of Technical Specification VE21-054, be warranted to be free from Defects and Related Defects, and shall not be deemed to be at WEOL (per TS VE21-054), for 14 years or 500,000 miles, whichever comes first.

The ESS original advertised (nameplate) energy storage capacity shall be clearly defined by the Bidder. Any ESS not meeting the requirements of Technical Specification Section 8.5 shall be deemed to be at WEOL (Warrantable End Of Life) and shall be replaced with new by the Contractor with an ESS of equal or greater advertised capacity and shall be of the latest design. An ESS reaching the OEM's gross discharge thruput limit shall be replaced under warranty by the Contractor. The Contractor shall provide documentation demonstrating a correlation and relationship between their SoH calculations and the operating and range requirements of Technical Specification Section 8.5 and shall provide to the Authority quarterly SoH reports for each ESS through the complete warranty period.

The Authority is allowed to engage third-parties for capacity testing. If applicable, the proposal shall include a comprehensive statement of any additional warranty terms relating to the ESS, including explanation of all disclaimers within the warranty.

9.4. Serial Numbers

Upon delivery of each bus, the Contractor shall provide a complete electronic list of serialized units installed on each bus to facilitate warranty tracking. The list shall include, but is not limited to the following:

- a. Traction motor (s) (Primary Propulsion Unit)
- b. Primary Propulsion Unit
- c. Energy Storage System pack(s) or module(s)
- d. All major components of the Propulsion System
- e. All major components of the Thermal Management Systems to include any heat exchanger

- f. High Voltage Battery Management System and major components
- g. Low Voltage Battery Management System and major components
- h. Low Voltage batteries
- i. HVAC system and major components
- j. Auxiliary heater
- k. Drive axle
- l. Steering axle
- m. Power steering unit
- n. Hydraulic pump and motor
- o. Air compressor and motor
- p. Mobility device/wheelchair ramp
- q. Communications systems major components
- r. Radio system major components
- s. Destination sign major components
- t. Farebox
- u. Serial numbers for any major components being installed as part of awarded Options

The Contractor shall provide updated serial numbers resulting from warranty campaigns. The format of the list shall be approved by the Authority prior to delivery of the first production bus.

9.5. Extension of Warranty

If, during the warranty period, repairs or modifications on any bus, made necessary by defective design, materials or workmanship are not completed due to lack of material or inability to provide the proper repair for 30 calendar days, the applicable warranty period shall be extended by the number of days equal to the delay period. This shall apply to all extended warranties.

9.6. Voiding of Warranty

The warranties shall not apply to the failure of any part or component of the bus that directly results from misuse, negligence, accident, or that has been repaired or altered in any way so as to affect adversely its performance or reliability. The warranty shall also be void if the Authority fails to conduct normal inspections and scheduled preventive maintenance procedures as recommended in the OEM maintenance manuals and that omission caused the part or component failure. The Authority shall maintain documentation, auditable by the Contractor, verifying service activities in conformance with the OEM maintenance manuals.

9.7. Exceptions and Additions to Warranty

The warranty shall not apply to scheduled maintenance items and normal wear-out items such as belts, tires and friction material unless such items require a service interval less than the defined scheduled maintenance interval or require premature replacement. The warranty shall not apply to items furnished by the Authority except insofar as such equipment may be damaged by the failure of a part or component for which the Contractor is responsible.

9.8. Pass-Through Warranty

Should the Contractor elect to not administer warranty claims on certain components and wish to transfer this responsibility to the sub-suppliers, or to others, the Contractor shall request this waiver.

Contractor shall state in writing that the Authority's warranty reimbursements will not be impacted. The Contractor also shall state in writing any exceptions and reimbursement including all costs incurred in transport of buses and/or components. At any time during the warranty period, the Contractor may request approval from the Authority to assign its warranty obligations to others, but only on a case-by-case basis approved in writing by the Authority. Otherwise, the Contractor shall be solely responsible for the administration of the warranty as specified. Warranty administration by others does not eliminate the warranty liability and responsibility of the Contractor.

9.9. Superior Warranty

The Contractor shall pass on to the Authority any warranty offered by a component Supplier that is superior to that required herein. The Contractor shall provide a list to the Authority noting the conditions and limitations of the Superior Warranty not later than the start of production. The Superior Warranty shall not be administered by the Contractor.

9.10. Fleet Defects

A fleet defect is defined as cumulative failures of any kind in the same components in the same or similar application where such items covered by the warranty and such failures occur in the specified proportion of the buses delivered under this contract. The proportion shall be fifteen (15) percent. The Fleet Defect shall apply to the complete bus warranty as well as all additional/extended component/system warranty periods. When a Fleet Defect is declared, the remaining warranty on that item / component stops. The warranty period does not restart until the Fleet Defect is corrected.

For the purpose of calculating Fleet Defects, each order (base and options) shall be treated as a separate bus fleet. Should there be a change in a major component within either the base order or an option order, the buses containing the new major component shall become a separate bus fleet for the purposes of Fleet Defects. Once a Fleet Defect has been determined for any component in any given fleet, the Fleet Defect status shall extend to all other fleets sharing the same component. In the event of a Fleet Defect the Contractor will apply corrective action to all delivered fleets with similar components, issues, or configurations as appropriate to prevent further failures.

The Contractor shall be responsible for all costs of labor and material, for defect identification and location, and for removal, repair or replacement of defective parts, and for alterations, repairs, tests, and adjustments in

connection therewith made to obtain bus performance identified in the Technical Specification. All such replaced or repaired items shall be guaranteed for the remainder of the warranty period or for one (1) year, whichever period is greater.

The Contractor shall correct a fleet defect under the warranty provisions defined in “Repair Procedures”. After correcting the Defect, the Authority and the Contractor shall mutually agree to and the Contractor shall promptly undertake and complete a work program reasonably designed to prevent the occurrence of the same Defect in all other buses and spare parts purchased under this contract. Where the specific Defect can be solely attributed to particular identifiable part(s), the work program shall include redesign and/or replacement of the defectively designed and/or manufactured part(s) in the entire fleet. In all other cases, the work program shall include inspection and/or correction of all of buses in the fleet via a mutually agreed to arrangement. The Contractor shall update, as necessary, technical support information (parts, service and operator’s manuals) due to changes resulting from warranty repairs. The Authority may immediately declare a Defect in design resulting in a safety hazard to be a Fleet Defect. The Contractor shall be responsible to furnish, install and replace all defective units.

9.11. Repair Procedures

The Contractor is responsible for all warranty-covered repair work. To the extent practicable, the Authority will allow the Contractor or its designated representative to perform such work. At its discretion, the Authority may perform such work if the Authority determines it needs to do so based on transit service or other requirements. Such work shall be reimbursed by the Contractor.

If the Authority detects a defect within the warranty periods (including extended warranty periods), it shall within 20 working days, notify the Contractor’s representative. Within 5 calendar days after receipt of notification, the Contractor’s representative shall be provided an opportunity to examine the system or component at the Authority’ property or at the Contractor’s plant. No later than 5 calendar days after receipt of notification, warranty coverage on the subsystem or component shall be mutually resolved between the Authority and the Contractor. Work shall commence to correct the Defect within 5 working days after receipt of notification and shall be conducted in accordance with “Repairs by Contractor”.

When warranty repairs are required, the Authority and the Contractor's representative shall agree within 5 working days after notification on the most appropriate course for the repairs and the exact scope of the repairs to be performed under the warranty. If no agreement is obtained within the 5-day period, the Authority reserves the right to commence the repairs in accordance with *Repairs by Authority*.

Warranty shall include diagnosis of the issue, removal and replacement of component(s), as well as road calls and towing related to warrantable failures.

Repairs by Contractor:

- a. The Contractor or its designated representative shall begin work on warranty-covered repairs, within 5 calendar days after receiving notification of a Defect from the Authority. The Authority shall work with the Contractor to make the bus available to complete repairs timely in line with the Contractor’s proposed repair schedule.

- b. The Contractor shall provide at its own expense all spare parts, tools, and space required to complete repairs. At the Authority's option, the Contractor may be required to remove the bus from the Authority's property while repairs are being performed. If the bus is removed from the Authority's property, repair procedures must be diligently pursued by the Contractor's representative, and the Contractor shall assume risk of loss and insure the bus for 100% of its Contract value while the bus is under its control. All costs incurred by the moving of Authority's buses to and from the Contractor's repair facility are to be borne by the Contractor and reimbursable under warranty if the Authority's personnel are utilized to shift the buses.

Repairs by Authority:

- a. **Parts Used:** If the Authority performs the warranty-covered repairs, it shall correct or repair the Defect and any Related Defects utilizing parts supplied by the Contractor specifically for this repair. At its discretion, the Authority may use Contractor-specified parts available from its own stock if deemed in its best interests.
- b. **Contractor Supplied Parts:** The Authority may require that the Contractor supply new parts for warranty-covered repairs being performed by the Authority. These parts shall be shipped prepaid to the Authority from any source selected by the Contractor within 10 working days of receipt of the request for said parts. Parts supplied by the Contractor shall be Original Equipment Supplier (OEM). All parts shall include hardware, bolts, nuts, washers and associated accessories that are normally supplied when replacement parts or kits are purchased.
- c. **Defective Components Return:** The Contractor may request that parts covered by the warranty be returned to the manufacturing plant. The total cost for this action shall be paid by the Contractor. Materials should be returned in accordance with Contractor's instructions.
- d. **Failure Analysis:** The Contractor shall, upon specific request of the Authority, provide a failure analysis of fleet defect- or safety-related parts, or major components, removed from buses under the terms of the warranty, that could affect fleet operation. Such reports shall be delivered within 60 days of the receipt of failed parts.
- e. **Monthly, or at a period to be mutually agreed upon, reports of all repairs covered by this warranty shall be submitted by the Authority to the Contractor for reimbursement or replacement of parts. The Contractor shall provide forms for these reports. The Authority will approve the warranty forms to be utilized on this contract at the initial design review meeting. Efforts shall be made by both the Contractor and the Authority to automate warranty claims processing and record keeping.**

9.12. On-site Warranty Coordinator

The Contractor shall provide an on-site Warranty Coordinator to handle and coordinate with the Authority all warranty issues for the duration of the warranty period. The aforementioned Warranty Coordinator must be available for the complete bus warranty (1 year/50,000 miles) period and the following full year (two years in total), for each bus delivered and accepted by the Authority plus any extensions to said period due to required removal from passenger service, fleet defect repairs, and/or retrofit program completion. The Authority reserves the right to give approval of the proposed Warranty Coordinator.

The Authority requires on-site availability of the Contractor's Warranty Coordinator or representative to address technical issues as they arise and for processing warranty claims, both actions to be conducted in a timely, expeditious manner.

9.13. Warranty Reimbursement

It shall be understood that the Contractor shall be responsible for all costs of labor and material for defect identification and location, and for the removal, repair, or replacement of defective parts, and for alterations, repairs, tests, and adjustments in connection therewith, made to obtain specified bus performance. All work performed by Authority personnel on behalf of the Contractor in connection with the execution of this contract shall be billable to the Contractor at the MBTA's full burdened rate for a repairperson/mechanic at the time of the repair. (\$79.22 per hour in the Authority's FY2021). This rate is subject to escalation based upon approved labor contracts during the term of this contract. Replaced and/or repaired items shall be guaranteed for the remainder of the guarantee period or for one (1) year, whichever period is the greater.

The Authority will be reimbursed by the Contractor for defective parts or for parts that must be replaced to correct a defect. The reimbursement will be at the current price at the time of repair and include taxes where applicable plus fifteen (15) percent handling costs. Handling costs shall not apply if parts are supplied by the Contractor and shipped to the Authority.

During the respective period of guarantee, all bus parts or material caused to be damaged as the result of a defect in design, material, or workmanship in other bus parts or material, shall be repaired or replaced at the expense of the Contractor. Failure reports must accompany all repaired parts. At no time will the Authority be required to provide information or justification for warranty reimbursement other than the providing of maintenance records.

Each claim must be submitted no more than thirty (30) days from the date of failure and/or repair, whichever is later. All defective parts must be returned to the Contractor, when requested, no more than forty-five (45) days from the date of repair.

The Contractor shall respond to the warranty claim with an accept / reject decision including necessary failure analysis no later than sixty (60) days after the Authority submits the claim and defective part(s), when requested. Reimbursement for all accepted claims shall occur no later than thirty (30) days from the date of acceptance of a valid claim. The Authority may dispute rejected claims or claims for which the Contractor did not reimburse the full amount. The parties agree to review disputed warranty claims during the following quarter to reach an equitable decision to permit the disputed claim to be resolved and closed. The parties also agree to review all claims at least once per quarter throughout the entire warranty period to ensure that open claims are being tracked and properly dispositioned.

In no case shall any correction of defects in design, material, or workmanship take the form of an increase in maintenance requirement beyond that specified in the Contract Documents, described in the original edition of the maintenance instructions, approved in the Baseline design, or submitted by the Contractor at the time of bid for the Contract.

Reimbursements are to be transmitted to the Authority's Project Manager.

9.14. Warranty After Repair/Replacement

If any component, unit, or subsystem is repaired, rebuilt or replaced by the Contractor, or by the Authority with the concurrence of the Contractor, the component, unit, or subsystem shall have the un-expired warranty period of the original. Repairs shall not be warranted if Contractor-provided or authorized parts are not used for the repair, unless the Contractor has failed to respond within 5 days.

The warranty on items determined to be fleet defects shall be guaranteed for the remainder of the warranty period or for one-year, whichever period is greater. This extended warranty shall begin on the repair/replacement date for corrected items on each bus if the repairs are completed by the Contractor or on the date the Contractor provides all parts to the Authority.

9.15. Warranty Processing Procedures

The following list represents requirements by the Contractor to the Authority for processing warranty claims. One failure per bus per claim is allowed.

- a. bus number and VIN
- b. total bus life mileage at time of repair
- c. date of failure/repair
- d. acceptance / in-service date
- e. Contractor part number and description
- f. component serial number
- g. description of failure
- h. all costs associated with each failure / repair (invoices may be required for third-party costs):
 1. towing
 2. road calls
 3. labor
 4. materials
 5. parts
 6. handling
 7. troubleshooting time

9.16. Warranty Forms

The Authority's forms will be accepted by the Contractor if all of the above information is included. Electronic submittal may be used if available between the Contractor and the Authority.

9.17. Return of Parts

When returning defective parts to the Contractor, the Authority shall tag each part with the following:

- a. bus number and VIN
- b. claim number
- c. part number
- d. serial number (if available)

9.18. Warranty Work and Contractor Work Tracking and Responsibilities

It is the responsibility of the Contractor to track all warranty work, non-warranty work, retrofits, updates, software revisions, diagnostic events, support services, conducted by the Contractor, its representatives, or OEM system suppliers; whether performed at the Authority's facilities or at any offsite location such as the Contractor's commissioning site, OEM facilities, subcontractor facilities, etc. for all buses covered by this RFP. The Contractor shall enter all work the day the work is performed into the Authority's tracking system (MCRS). All MCRS data entries shall include replacement parts information (to include Contractor and/or OEM part numbers and pricing), labor time, detailed description of work performed, indication of warrantable condition, and results of diagnostic tests.

Any work that is performed after the Authority's Resident Inspector has signed for shipment of a bus shall be considered warranty work and shall be documented as such.

10. QUALITY ASSURANCE / QUALITY CONTROL (QA/QC) REQUIREMENTS

10.1. Project Quality Assurance Plan

To provide a quality product to the Authority, the Contractor shall have planned and established a documented quality assurance program in compliance with ANSI/ISO/ASQ Q9001-2008 or latest revision, and FTA Quality Management System Guidelines, FTA-PA-27-5194-12-1.

The Contractor shall apply the principles of the appropriate ISO 9000 series processes or equivalent and enforce the elements of the quality assurance program within all parts of its organization and with all manufacturers, subcontractors, suppliers, and sub suppliers performing Contract work.

Quality system documentation must be consistent with the skills needed, methods used, and training among personnel performing Contract work in accordance with the requirements of this specification.

The Contractor shall submit for Authority review and approval its proposed Project Quality Assurance Plan (PQAP) at the Kickoff Meeting. [CDR #3]

This Plan must identify the controls, resources, and skills the Contractor will apply to satisfy project quality system requirements. The following sections shall be addressed in the PQAP submitted by the Contractor to the Authority.

The Authority reserves the right to perform a quality assurance audit of the Contractor's quality assurance system to achieve a better understanding of these processes and confirm compliance to these processes. Records and data maintained by the quality assurance organization shall be available for review by the resident inspectors.

10.2. Management Responsibility

The Contractor shall define and document a quality policy and communicate, implement and maintain that policy at all levels of their organization. The Contractor shall designate a representative who shall have defined authority and responsibility for ensuring that the Quality policy is implemented and maintained. The Contractor shall identify those persons responsible for each quality function and shall define in writing the responsibility, authority and interrelation of those persons.

The Contractor shall provide an organization chart identifying project personnel who have responsibility for ensuring or controlling quality and their interrelationships with the Contractors project management team.

In particular, the organizational chart must identify personnel who have responsibility to initiate action to prevent quality problems, to identify and record quality problems, to initiate solutions through appropriate channels, and to verify implementation of solutions to quality problems.

The Personnel responsible for assuring quality must be independent of those having responsibility for the work being performed and shall report to the Contractor's top management.

10.3. Design Control

A significant part of the Contractor's quality and overhaul program shall be to prevent problems by controlling the applicable manufacturing processes, thereby lessening the demands on required inspection and correction activities. To this end, the Contractor shall identify and plan processes necessary to produce, under controlled conditions, products, and services of the specified quality.

The Contractor shall prepare documented instructions and workmanship criteria and monitor and approve production processes.

Production equipment and processes must be maintained as necessary to ensure the manufactured bus satisfies specified requirements.

The contractor shall keep and provide the Authority on a monthly basis an updated Engineering Changes and Recurring Workmanship Log.

10.4. Material Procurement and Control Plan

The Contractor shall establish and utilize procedures for control of components/assemblies fabricated by the Contractor or Subcontractor, and/or procured by the Contractor or Subcontractor.

The Contractor's Material Procurement and Control Plan shall define procedures and processes that will be utilized by the Contractor for material procurement and control. At a minimum, the plan must identify procedures and processes for the following:

Supplier control: The Contractor shall require each Supplier to maintain a quality control program for the services and supplies that it provides. The Contractor's quality assurance organization shall inspect, and test materials provided by Suppliers for conformance to specification requirements. Materials that have been inspected, tested and approved shall be identified as acceptable to the point of use in the manufacturing or assembly processes. Controls shall be established to prevent inadvertent use of nonconforming materials. Requirements must be provided for additional testing in the event that nonconforming materials are identified.

Purchasing data: The Contractor shall verify that all applicable specification requirements are properly included or referenced in purchase orders of articles to be used on transit buses.

Material Identification and Accountability, through all stages of the overhaul process. Individual components/assemblies or lots shall retain unique identification and indicate their acceptance, rejection, or uninspected status.

At the Authority's request, the Contractor shall coordinate communications, conference calls, or meetings between the Authority, the Contractor, and any sub-suppliers. The Contractor shall coordinate and/or participate in source inspection(s) of sub-supplier parts, processes, and facilities as appropriate and at any time requested by the Authority.

10.5. Control and Calibration of Measurement Tools and Test Equipment

The Contractor and any Subcontractors shall establish and utilize control and calibration procedures to ensure that only calibrated measurement tools jigs, patterns, and test equipment are used.

The Contractor shall provide and maintain the necessary gauges and other measuring and testing devices for use by the quality assurance organization to verify that the buses conform to all specification requirements. These devices shall be calibrated at established periods against certified measurement standards that have known, valid relationships to national standards.

When production jigs, fixtures, tooling masters, templates, patterns and other devices are used as media of inspection, they shall be proved for accuracy at formally established intervals and adjusted, replaced or repaired as required to maintain quality.

The Contractor's gauges and other measuring and testing devices shall be made available for use by the resident inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.

The Contractor and any Subcontractors shall keep on file a certification of calibration for all measurement tools and test equipment.

Calibration status, including calibration due date, must be marked on all measurement tools and test equipment.

Inspection and test records must include the identification and calibration status of all measurement tools and test equipment used.

Measurement tools and test equipment must be suitably stored to ensure continued accuracy and fitness for use.

Control and calibration procedures must contain provisions for determining the validity of previous measurements and tests and taking appropriate corrective action if measurement tools or test equipment are found out of calibration.

10.6. Inspection and Test Status

The Contractor shall identify by suitable means the inspection and test status of products throughout the work process so that only acceptable parts are used. The Contractor's Project Quality Assurance Plan must identify the inspection authority responsible for releasing parts as conforming at each stage of the work.

10.7. Controlling Nonconforming Products and Services

The Contractor shall establish and maintain a procedure to prevent the inadvertent use of nonconforming materials and shall include:

- The quality assurance organization shall monitor the Contractor's system for controlling nonconforming materials. The system shall include procedures for identification, segregation and disposition;
- Nonconforming materials must be segregated from acceptable items; Control and Disposition of Nonconforming Materials, to prevent inadvertent use or installation of defective components/assemblies; Suppliers of nonconforming material shall be notified of the nonconformance and the Contractor shall work with the Supplier or identify a new Supplier to prevent recurrence of the defect; and,
- The Contractor shall establish Material Review staff, comprised of qualified individuals, to review and dispose of nonconforming materials, recommend corrective actions to prevent recurrence of the defect, and verify that corrective actions have been implemented.

In any case, the Contractor remains solely responsible to prevent unauthorized use of nonconforming material.

10.8. Corrective and Preventive Action

The difference between corrective and preventive action must be clearly expressed in the Contractor's Project Quality Assurance Plan.

Corrective Action procedures must address actual nonconformities that have occurred.

Preventive Action procedures must address the potential for nonconformity to occur in the future.

The Contractor shall establish and maintain procedures for taking corrective and preventive action that is appropriate to the size of the problems and commensurate with the risks that they present.

Corrective Action procedures must be effective in handling complaints from nonconformance reports and from all entities, including the MBTA. Methods must include problem analysis, recording results, determining the most effective corrective action, verifying that corrective actions have been taken, and are effective. Problem analysis, root cause investigation, and Corrective Actions shall be appropriately documented and reported to the Authority in a timely manner.

Preventive Action procedures must require use of all available information to eliminate potential sources of nonconformity. Methods must include data and information analysis, determining the best approaches to preventing nonconformity, implementing and ensuring effectiveness of preventive action plans, and forwarding significant details of actions taken for review by management.

10.9. Use of Statistical Techniques

Statistical quality control applications used in acceptance of parts, materials, or processes by the Contractor must be fully documented and based on generally recognized and accepted statistical quality control methods and defined in the Contractors Project Quality Assurance Plan.

10.10. Documentation

All reports, plans, programs, procedures, schedules, and other materials prepared for the Contract work to be performed by the Contractor or any Subcontractors shall be the property of the Authority. The Authority shall be entitled to copies and access to these materials during the progress of the Contract. All such reports, plans, programs, procedures, schedules, and other materials must be readily accessible to the Authority.

10.11. Test Program Plan

The Test Program Plan is used as a means for the Contractor to demonstrate Specification compliance to the Authority. The Contractor shall submit a Test Program Plan for review and approval by the Authority at the Initial Design Review Meeting. [CDR #22]

The Test Program Plan must include a comprehensive list of all inspection and testing to be performed as required in TS Attachment 2. Additional qualification of design testing may be required from the Contractor by the Authority.

The arrangement and content of Test Procedures must be approved by the Authority as part of the Test Program Plan.

The Contractor shall provide written procedures for testing activities, including requirements for feature, function, and performance verification/validation.

Procedures must identify all measurement tools and test equipment required to perform each test.

10.12. Quality Records

The Contractor is required to establish procedures for maintaining quality records. These procedures should identify which records should be kept, responsibility for production and collection, and responsibility for indexing, filing, storage, maintenance, and disposition of quality records.

The Contractor is required to retain all records in an environment that will minimize deterioration and damage for a minimum of seven (7) years after the last bus has been accepted by the Authority. In the event of litigation claim, negotiation, audit or other action involving the records has been started before expiration of the seven-year period are subject to the provisions of 49 CFR 18.42.

The Contractor shall maintain all records including those that show achievement of quality objectives and functioning of the quality management system.

At a minimum, quality records requiring control are Inspection Reports, Test Data, Qualification Records, Nonconformances, Corrective Actions, Audit Reports, Inspections, and Training Documentation.

Records must include actual results of measurements taken and tests conducted.

Inspection and test records must include the identification and calibration status of all measurement tools and test equipment used.

Records and data shall be available for review by the resident inspectors or Authority representatives.

10.13. Quality Audits

An internal audit and audit schedule shall be established and implemented by the Contractor to ensure the elements of the Quality Management System are functioning as intended.

The Audits and follow-up shall be documented and conducted in accordance with documented procedures.

The Contractor shall present the results of the audits to the personnel having responsibility in the area being audited with corrective actions addressed and documented.

Records of the audit program shall be subject to review by the Authority.

Additionally, the Authority reserves the right to perform a quality assurance audit of the Contractor's Quality System to achieve a better understanding of the Contractor's processes and confirm compliance to the specification.

10.14. Training

The Contractor shall establish and maintain procedures for identifying the training needs, and provide for the training of all personnel performing activities affecting quality.

The Contractor shall maintain training and qualification records of all personnel assigned to bus manufacturing tasks covered by this contract.

10.15. Resident Inspector

The Authority shall be represented at the Contractor's plant by Resident Inspectors, as required by FTA. Resident Inspectors may be Authority employees or outside contractors. The Authority shall provide the identity of each inspector and shall also identify his or her level of authority in writing. They shall monitor, in the Contractor's plant, the manufacture of transit buses built under this procurement. The presence of these Resident Inspectors in the plant shall not relieve the Contractor of its responsibility to meet all the requirements of this procurement. The Authority shall designate a Primary Resident Inspector, whose duties and responsibilities are delineated below.

During the project kickoff meeting the Contractor shall present and provide a copy of the manufacturers' formal Quality Assurance program. The Authority reserves the right to perform a quality assurance audit of the Contractor's quality assurance system to achieve a better understanding of these processes and confirm

compliance to these processes. Records and data maintained by the Quality Assurance Organization shall be available for review by the Resident Inspectors.

The Primary Resident Inspector shall participate in Pre-Production and Design Review Meetings with the Authority. At these meetings, quality assurance procedures shall be addressed, the configuration of the buses and the manufacturing processes shall be finalized, and all Contract documentation shall be provided to the Primary Resident Inspector.

No less than thirty (30) days prior to the beginning of bus manufacture, the Primary Resident Inspector shall meet with the Contractor's Quality Assurance Manager and conduct a Pre-Production audit meeting. They shall review the inspection procedures and finalize inspection checklists. The resident inspectors shall begin monitoring bus construction activities two weeks prior to the start of bus fabrication.

The Contractor's gauges and other measuring and testing devices shall be made available for use by the Resident Inspectors to verify that the buses conform to all specification requirements. If necessary, the Contractor's personnel shall be made available to operate the devices and to verify their condition and accuracy.

Discrepancies noted by the Resident Inspector during assembly shall be entered by the Contractor's inspection personnel on a record that accompanies the major component, subassembly, assembly or bus from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures or other conditions that cause articles to be in nonconformity with the requirements of the Contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, then the Contractor shall submit for Authority review and approval the modification, repair or method of correction.

The Primary Resident Inspector shall remain in the Contractor's plant for the duration of bus assembly work under this Contract. Only the Primary Resident Inspector or designee shall be authorized to release the buses for delivery. The Resident Inspectors shall be authorized to approve the pre-delivery acceptance tests. Upon request to the Contractor's Quality Assurance supervisors, the Resident Inspectors shall have access to the Contractor's quality assurance files related to this procurement. These files shall include drawings, assembly procedures, material standards, parts lists, inspection processing and reports, and records of defects.

At the time of the Pre-Production Meeting, the Contractor shall provide all safety and other operational restrictions that govern the Contractor's facilities. These issues will be discussed, and the parties will agree which rules / restrictions will govern the Authority's inspector(s) and any other Authority representatives during the course of the Contract.

10.16. Inspection System

The QAO shall establish, maintain, and periodically audit a fully-documented inspection system. The system shall prescribe inspection and test of materials, work in process, and completed articles. As a minimum, it shall include the following controls:

- a. **Inspection Personnel:** Sufficient trained inspectors shall be used to ensure that all materials, components, and assemblies are inspected for conformance with the qualified bus design.
- b. **Inspection Records:** Acceptance, rework, or rejection identification shall be attached to inspected articles. Articles that have been accepted as a result of approved materials review

actions shall be identified. Articles that have been reworked to specified drawing configurations shall not require special identification. Articles rejected as unsuitable or scrap shall be plainly marked and controlled to prevent installation on the Authority's buses. Articles that become obsolete as a result of engineering changes or other actions shall be controlled to prevent unauthorized assembly or installation. Unusable articles shall be isolated and then scrapped.

- c. **Discrepancies** noted by the Contractor or Resident Inspectors during assembly shall be entered by the inspection personnel on a record that accompanies the major component, subassembly, assembly, or bus from start of assembly through final inspection. Actions shall be taken to correct discrepancies or deficiencies in the manufacturing processes, procedures, or other conditions that cause articles to be in nonconformity with the requirements of the contract specifications. The inspection personnel shall verify the corrective actions and mark the discrepancy record. If discrepancies cannot be corrected by replacing the nonconforming materials, the Authority shall approve the modification, repair, or method of correction to the extent that the contract specifications are affected.
- d. **Quality Assurance Audits:** The QAO shall establish and maintain a quality control audit program. Records of this program shall be subject to review by the Authority.

10.17. Inspections

Inspection stations shall be at the best locations to provide for the Work content and characteristics to be inspected. Stations shall provide the facilities and equipment to inspect structural, electrical, hydraulic and other components and assemblies for compliance with the design requirements.

Stations shall also be at the best locations to inspect or test characteristics before they are concealed by subsequent fabrication or assembly operations. These locations shall minimally include underbody structure completion, body framing completion, body prior to paint preparation, water test, engine installation completion, underbody dress-up and completion, bus prior to final paint touchup, bus prior to road test and bus final road test completion. A full listing of inspection stations shall be prepared by the Contractor and included in the Test Program Plan provided to the Authority for review and approval during the Initial Design Review meeting.

The Authority shall be notified of all customer witness point inspections and provided with an opportunity to witness these inspections.

A system shall be maintained by the Contractor's Quality Assurance Organization for identifying the inspection status of components and completed transit buses. Identification may include cards, tags or other normal quality control devices.

10.18. Acceptance Tests

Fully documented tests shall be conducted on each production bus following manufacture to determine its acceptance to the Authority. These acceptance tests shall include pre-delivery inspections and testing by the Contractor and inspections and testing by the Authority after the buses have been delivered.

- a. **Completed items:** A system for final inspection and test of completed transit buses shall be provided by the quality assurance organization. It shall measure the overall quality of each completed bus.
- b. **Pre-Delivery Tests:** The Contractor shall conduct acceptance tests at its plant on each bus following completion of manufacture and before delivery to the Authority. These pre-delivery tests shall be witnessed by the Authority's resident inspector and include visual and measured inspections, as well as testing the total bus operation. The tests shall be conducted and documented in accordance with written test plans approved by the Authority.

Additional tests may be conducted at the Contractor's discretion to ensure that the completed buses have attained the required quality and have met the requirements in "Section TS: Technical Specifications." The Authority may, prior to commencement of production, demand that the Contractor demonstrate compliance with any requirement in that section if there is evidence that prior tests have been invalidated by the Contractor's change of Supplier or change in manufacturing process. Such demonstration shall be by actual test, or by supplying a report of a previously performed test on similar or like components and configuration. Any additional testing shall be recorded on appropriate test forms provided by the Contractor and shall be conducted before acceptance of the bus.

The pre-delivery tests shall be scheduled and conducted with thirty (30) days' notice so that they may be witnessed by the resident inspectors, who may accept or reject the results of the tests. The results of pre-delivery tests, and any other tests, shall be filed with the assembly inspection records for each bus. The underfloor equipment shall be available for inspection by the resident inspectors, using a pit or bus hoist provided by the Contractor. A hoist, scaffold or elevated platform shall be provided by the Contractor to easily and safely inspect bus roofs. Delivery of each bus shall require written authorization of the primary resident inspector. Authorization forms for the release of each bus for delivery shall be provided by the Contractor. An executed copy of the authorization shall accompany the delivery of each bus.

- c. **Water Test Inspection:** The pre-delivery tests shall include a Water Test Inspection. This water test shall replicate the pressure and direction of water flow seen during operation and cleaning with the bus wash equipment in use at the Authority. The Water Test Inspection checks the integrity of the vehicle's body seams, window frame seals, entrance and exit doors, windows, and any other exterior component close-out, for their ability to keep rainwater, road splash, melting snow and slush, and other exterior water, from entering the inside of the vehicle or any sealed compartment. The vehicle's interior and sealed compartments shall be inspected for signs of moisture and water leaks. If any moisture or water is detected, then the source of the leak will be located and repaired by the Contractor, and the vehicle will be tested again.
- d. **Visual and Measured Inspections:** Visual and measured inspections shall be conducted with the bus in a static condition. The purpose of the inspection testing includes verification of overall dimension and weight requirements, that required components are included and are ready for operation, and that components and subsystems designed to operate with the bus in a static condition do function as designed.
- e. **Total Bus Operation:** Total bus operation shall be evaluated during road tests. The purpose of the road tests is to observe and verify the operation of the bus as a system and to verify the functional operation of the subsystems that can be operated only while the bus is in motion.

- Each bus shall be driven for a minimum of fifteen (15) miles during the road tests. If requested, computerized diagnostic printouts showing the performance of each bus shall be produced and provided to the Authority. Observed Defects shall be recorded on the test forms. The bus shall be retested when Defects are corrected, and adjustments are made. This process shall continue until Defects or required adjustments are no longer detected.
- f. **Post Delivery Tests:** The Authority may conduct acceptance tests on each delivered bus. These tests shall be completed within 15 (fifteen) days after bus delivery and shall be conducted in accordance with written test plans. The purpose of these tests is to identify Defects that have become apparent between the time of bus release and delivery to the Authority. The post-delivery tests shall include visual inspection and bus operations.
- Buses that fail to pass the post-delivery tests are subject to non-acceptance. The Authority shall record details of all Defects on the appropriate test forms and shall notify the Contractor of non-acceptance of each bus within five days after completion of the tests. The Defects detected during these tests shall be repaired according to procedures defined in the Warranty Requirements Sections
- g. **Visual Inspection:** The post-delivery inspection is similar to the inspection at the Contractor's plant and shall be conducted with the bus in a static condition. Any visual delivery damage shall be identified and recorded during the visual inspection of each bus.
- h. **Bus Operation:** Road tests will be used for total bus operation similar to those conducted at the Contractor's plant. In addition, the Authority may elect to perform chassis dynamometer tests. Operational deficiencies of each bus shall be identified and recorded.

10.19.Manuals

The Contractor shall provide complete maintenance, operational, and parts manuals as described in Technical Specification VE21-054 Section 5.6 to the Authority.

In the event that any significant changes to the vehicle (components, systems, or configuration) are made after the approval of the final manuals, updated manuals or modified page inserts (hard copy and electronic) shall be provided by the Contractor.

10.20.Bus History Book

The Contractor shall provide a hard copy of the Bus History Book as well as an electronic copy for each bus at time of delivery. Each Bus History Book shall contain the following information at a minimum:

- a. List of defects noted and the disposition of each
- b. Listing of all serial-numbered components
- c. Shipping documents
- d. Shipping exceptions and unresolved / open issues
- e. Summary detail of each test performed on the bus or any part of the bus
- f. Complete record of inspection findings
- g. List of all engineering changes from the baseline configuration

At the Authority's discretion, additional documentation may be added to the requirements of the Bus History Book.

During the Pre-Production meeting the Contractor shall provide a preliminary Bus History Book (CDR 5) for the Authority's review. The Contractor shall present the final draft Bus History Book to the Authority for approval as part of the Pilot Bus FAI.

10.21. Software Configuration Control

The Contractor shall provide a robust Software Configuration Control and Version Control system following the latest revision of IEEE 12207:2017 configuration management standards to track, audit, and manage, all software revisions. This shall include a standard submittal form ensuring revisions are properly implemented and notification of Authority Technical Project Manager; the submittal form must at minimum include the following information:

- a. Existing (legacy) revisions
- b. Proposed revisions,
- c. Gross and net effects,
- d. Implementation schedules
- e. Follow up/verification of proper system function
- f. Monitoring of interconnecting systems.

(Refer to TS 79 Software Configuration Control for additional requirements)

11. CONTRACT TERMS AND CONDITIONS

Upon execution by the Contractor, these Terms and Conditions will be incorporated by reference into any Contract executed by the Contractor and the Massachusetts Bay Transportation Authority (MBTA), in the absence of a superseding law or regulation requiring a different Contract form. Performance shall include services rendered, obligations due, costs incurred, commodities and deliverables provided and accepted by the MBTA, programs provided or other commitments authorized under a Contract. A deliverable shall include any tangible product to be delivered as an element of performance under a Contract. The MBTA is entitled to ownership and possession of all deliverables purchased or developed with MBTA funds.

11.1. Contract Effective Start Date

Notwithstanding verbal or other representations by the parties, or an earlier start date indicated in a Contract, the effective start date of performance under a Contract shall be the date a Contract has been executed by an authorized signatory of the Contractor, the MBTA, a later date specified in the Contract or the date of any approvals required by law or regulation, whichever is later.

11.2. Personal Liability of Authority Official

In carrying out any of the provisions of the Contract, or in exercising any power or authority granted to them or within the scope of the Contract, there shall be no liability upon the Board of Directors, the Director of Materials Management, or authorized representatives thereof, either personally or as officials of the MBTA, it being understood that in all such matters they act solely as agents and representatives of the MBTA.

11.3. Hiring of MBTA Retirees

Bidder shall certify that, if awarded the Contract, it will comply with the MBTA's Hiring of Retirees Policy. The MBTA's Hiring of Retirees Policy prohibits the Authority from contracting with the MBTA retiree or an employment agency for the MBTA retiree's direct services. Bidder's requirements are stated herein. The Bidder is required to notify the MBTA as part of the bidding process that a MBTA retiree will be included as a member of its team. The Bidder shall provide the name and date of retirement of each MBTA retiree on the team. Every MBTA retiree working for the MBTA under this condition shall do so in accordance with M.G.L., Chapter 268A, Section 5. After award, Bidder is required to provide immediate notification of the arrival or departure of all MBTA retirees, and periodic updates upon request by the MBTA, throughout the life of the contract.

11.4. Headings Not Binding

The headings appearing at the beginning of the articles, sections, parts, paragraphs or subparagraphs in this Contract have been inserted for identification and reference purposes only.

11.5. Binding Effect

This Agreement shall be binding upon and shall inure to the benefit of the respective successors and permitted assigns of the Contractor and the MBTA.

11.6. Precedence of Documents

The contract shall consist of the documents detailed below. In the event of any inconsistency between any requirement or provision of the Contract, the inconsistency shall be resolved by giving precedence, in descending order, to the following:

1. Contract Documents
 - a. Form of Contract and any executed Change Orders and Amendments.
 - b. Addendum(a) and/or Proposal Modification & Clarification Guideline(s) to the Contract Documents, Conformed RFP Contractual Provisions, Conformed General Requirements and Covenants for Equipment Procurement and Conformed Request for Proposal including Attachments
 - c. General Requirements and Covenants for Equipment Procurement and Standard Equipment Procurement Specifications including Attachments
 - d. Conformed Technical Specification and Attachments
 - e. Contract Drawings
 - f. Bonds/Certificates, Certificates of Insurance, Affidavits and other forms as pertinent
 - g. Contractor's Proposal
2. Change Order(s) & Amendment(s)

Any Change Order and Amendment that is subsequently executed shall make reference to become a part of this Contract and shall take precedence as applicable.

The Contractor shall not take advantage of any apparent error or omission in the Contract Documents. In the event the Contractor shall discover such an error or omission, the Authority shall immediately be notified. The Authority shall then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Contract.

The individual documents comprising the Contract Documents are complementary and are intended to describe the work. Anything mentioned in the Specifications (Technical Provisions) and not shown on the Contract Documents, or shown on the Contract Documents and not mentioned in the Specifications, shall be of like effect as if shown or mentioned in both. The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the work.

The Contractor shall verify all figures on the Contract Drawings before commencing the work; shall promptly notify the Engineer of any errors, inconsistencies, or omissions which may be discovered; and obtain specific instructions in writing before proceeding with the work. Omission from Contract Drawings or Specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the Contract Drawings and Specifications, or which are customarily performed, shall not relieve the Contractor from performing such omitted work (no matter how extensive) or misdescribed details of the work and they shall be performed as if fully and correctly set forth and described in the Contract Drawings and Specifications at no additional expense or delay to the Authority.

11.7. Payments and Compensation

The Contractor shall only be compensated for performance delivered and accepted by the MBTA in accordance with the specific Terms and Conditions of a Contract. Overpayments shall be reimbursed by the Contractor or may be offset by the MBTA from future payments in accordance with state finance law. Acceptance by the Contractor of any payment or partial payment, without any written objection by the Contractor, shall in each

instance operate as a release and discharge of the MBTA from all claims, liabilities or other obligations relating to the performance of a Contract.

11.8. Contractor Payment Mechanism

All Contractors will be paid using the MBTA invoicing system and Contractor will submit its invoice with all supporting documentation as prescribed in a Contract. The MBTA shall review and return rejected invoices within fifteen (15) days of receipt with a written explanation for rejection, provided that payment periods listed in a Contract of less than thirty (30) days from the date of receipt of an invoice shall be effective only to enable the MBTA to take advantage of early payment incentives and shall not subject any payment made within the thirty (30) day period to a penalty.

11.9. Contract Termination, Suspension, Force Majeure

A Contract shall terminate on the date specified in a Contract, unless this date is properly amended in accordance with all applicable laws and regulations prior to this date, or unless terminated or suspended under this Section upon prior written notice to the Contractor.

1. Termination by MBTA

The MBTA may terminate a Contract without cause and without penalty, or may terminate or suspend a Contract if the Contractor breaches any material term or condition or fails to perform or fulfill any material obligation required by a Contract, or in the event of an elimination of an appropriation or availability of sufficient funds for the purposes of a Contract, or in the event of an unforeseen public emergency mandating immediate MBTA action.

The Contractor shall be paid its costs, including Contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to be paid by the Authority. If the Contractor has any property in its possession belonging to the Authority, the Contractor shall account for the same, and dispose of it in the manner the Authority directs.

2. Force Majeure

Upon immediate notification to the other party, neither the MBTA nor the Contractor shall be deemed to be in breach for failure or delay in performance due to Acts of God or other causes factually beyond their control and without their fault or negligence ("Force Majeure Event"). Subcontractor failure to perform or price increases due to market fluctuations or product availability will not be deemed factually beyond the Contractor's control.

Within thirty (30) calendar days after the last day of delay resulting from a Force Majeure Event, the Contractor shall furnish the MBTA with detailed information concerning the circumstances of the delay, the number of days actually delayed, the appropriate Agreement references, and the measures taken to prevent or minimize the delay. Upon review of the detailed information concerning the delay, the MBTA shall assess the impact the delay may have on price and schedule of the work and modify the Contract as needed in accordance with (Change Order).

3. Termination for Cause

If the work to be done under this Contract, or if the performance of the Contract is unnecessarily or unreasonably delayed by the Contractor; or if the Contractor is violating any material term of the Contract Documents; or the Contractor is not executing the same in good faith or in accordance with the term thereof; or if the Contractor shall become insolvent or be declared bankrupt or commit any act of bankruptcy or insolvency, the Authority may give notice, in writing, to the Contractor and its surety of such delay, neglect, or default, specifying the same; and, if the Contractor shall not proceed to cure the delay, neglect, or default within a period of twenty-one (21) days after such notice, then the Authority, because of such delay, neglect, or default, and the Contractor's failure to comply with such notice shall have full power and authority to:

- A. Declare the Contractor to be in default; and the Authority may thereupon notify the Contractor, by written notice at least 21 calendar days prior to the effective date of such termination, to discontinue all work, or any part thereof, under this Contract; and thereupon the Contractor shall discontinue the work, or such part thereof, and the Authority shall have the right, as the Authority may determine, to have the surety complete the work or to contract for the completion of the work, or such part thereof, to procure other materials, plant, tools, appliances, equipment, suppliers and property for the completion of the work, or such part thereof, and to charge the expense of said labor and materials, plant, tools, appliance, equipment, supplies and property to the Contractor.

The expense so charged may be deducted and paid for by the Authority out of such monies as may be due or at any time thereafter become due to the Contractor under and by virtue of this Contract, and the Contractor shall, upon completion of the work, or such part thereof, or from time to time during the course of the completion of the work, or such part thereof, as the Authority may require, forthwith pay to the Authority the excess, if any, of the cost to the Authority of the completion of the work, or such part thereof, over the amount payable to the Contractor for the same work and materials under the terms of this Contract; provided, however, that the Contractor shall not be liable to the Authority for any damages incurred solely by reason of the fault of a new Contractor engaged by the Authority or the Contractor's surety; and the completion of the work, or such part thereof, by the Authority shall not release or discharge the Contractor from liability for the remainder of the work hereunder; and when any particular part of the work is being carried on by the Authority by Contract or otherwise under the provisions of this Paragraph "A", the Contractor, unless directed to discontinue all work, shall continue the remainder of the work in conformity with the terms of this Contract and in such manner not to hinder or interfere with other Contractors of the Authority, or with persons or workmen employed, as above provided by the Authority by Contract or otherwise, to do any part of the work or to complete the same under the provision of this Paragraph "A"; or

- B. Declare this Contract at an end, except as to the liability of the Contractor hereinafter in this paragraph provided for, and the Authority shall thereupon have the right to have the surety contract the work or to contract for the completion of the work, to procure other materials, plant, tools, appliances, equipment, supplies and property for the completion of the same.
- i. If the expense to the Authority of completing the work (including the expense of procuring other materials, plant, tools, appliance, equipment, supplies and property) shall exceed that amount which would have been payable to the Contractor for the same work and materials under this Contract had the Contractor completed the Contract, the Contractor shall, upon completion of the work, as the Authority may require, pay the amount of the excess to the Authority.
 - ii. The Contractor shall also pay to the Authority the amount of any claim for which the Authority may be liable for injury to persons or property occurring on account of any work done by the Contractor under this Contract, by reason of negligence, fault or default of the Contractor, or for infringement of patents, or for any neglect, fault, or default of the Contractor, as herein above set forth, and shall also pay to the Authority the amount of any payment which the Authority may be required to make, and the amount of any loss or damage which the Authority may incur or suffer, and for which the Contractor may be liable by any neglect, fault or default of the Contractor; and
 - iii. Transfer title to the Authority and deliver in the manner, at the times, and to the extent, if any, directed by the Contracting Officer the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced as a part of, or acquired in connection with the performance of, the work terminated, and the completed or partially completed plans,

drawings, information, and other property which, if the Contract had been completed, would have been furnished to the Authority.

- C. The Authority may also proceed as it deems proper upon the bonds or other security in its possession; and
- D. The Authority may also bring any suit or proceeding for specific performance, injunction, or to recover damages, obtain any other relief, or for any other purpose proper under this Contract.

4. Suspension of Work

- A. The Authority, for reasons beyond its control, may at any time, by written order to the Contractor, stop all or any part of the work called for by this Contract for a period of thirty (30) days upon delivery of the order to the Contractor and for any further period to which the parties may agree. Any such order shall be specifically identified as a Stop Work Order issued pursuant to this Section. Upon receipt of such an order, the Contractor shall forthwith comply with its terms and take all reasonable steps to mitigate the costs allocable to the work covered by the order during the period of work stoppage. Within a period of thirty (30) days after a Stop Work Order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Authority shall either:
 - i. Cancel the Stop Work Order; or
 - ii. Terminate the work covered by such order and pay to the Contractor all reasonable termination charges.
- B. If a Stop Work Order issued under this Section is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. An equitable adjustment will be made in the delivery schedule or Contract price, or both, and the Contract will be modified in writing accordingly, if:
 - i. The Stop Work Order results in an increase in the time required for, or in the Contractor's cost properly allocable to, their performance of any part of this Contract; and
 - ii. The Contractor asserts a claim for such adjustment within thirty days after the end of the period of work stoppage; provided that, if the Authority decides the facts justify such action, the Contractor may receive and act upon such claim asserted at any time prior to final payment under the Contract.
- C. If a Stop Work Order is not canceled and the work covered by such order is terminated hereunder, the reasonable costs resulting from the Stop Work Order will be allowed in arriving at the termination settlement.

11.10. Written Notice

Any notice shall be deemed delivered and received when submitted in writing in person or when delivered by any other appropriate method evidencing actual receipt by the MBTA or the Contractor. Any written notice of termination or suspension delivered to the Contractor shall state the effective date and period of the notice, the reasons for the termination or suspension, if applicable, any alleged breach or failure to perform, a reasonable period to cure any alleged breach or failure to perform, if applicable, and any instructions or restrictions concerning allowable activities, costs or expenditures by the Contractor during the notice period.

11.11. Record-keeping and Retention, Inspection of Records

The Contractor shall maintain records, books, files and other data as specified in a Contract and in such detail as shall properly substantiate claims for payment under a Contract, for a minimum retention period of seven (7) years beginning on the first day after the final payment under a Contract, or such longer period as is necessary for the resolution of any litigation, claim, negotiation, audit or other inquiry involving a Contract. The MBTA shall have access, as well as any parties identified under Executive Order 195, during the Contractor's regular business hours and upon reasonable prior notice, to such records, including on-site reviews and reproduction of such records at a reasonable expense.

11.12. Assignment

Neither the Contract nor any interest herein shall be assigned, pledged or otherwise transferred by the Contractor without the written consent of the MBTA, except in the case of a transfer of all or substantially all of the Contractor's assets provided that all obligations of this Contract are assumed by the controlling entity. If the Contractor makes any such assignment, pledge or other transfer without the written consent of the MBTA, the Contract shall be voidable at the election of the MBTA. The MBTA's consent to any such assignment, pledge or other transfer may impose such additional conditions thereon as may be deemed necessary to ensure the performance of the terms of the Contract by the assignee. Moreover, unless otherwise agreed to in writing by the MBTA, any transfer by the Contractor shall not release the Contractor of its liability under the Contract. The sale of fifty percent (50%) or more of the equity ownership of a Contractor shall be considered an assignment requiring the prior written approval of the MBTA.

11.13. Subcontracting By Contractor

The Contractor certifies full responsibility for Contract performance, including subcontractors, and that comparable Contract terms will be included in subcontracts, and that the MBTA will not be required to directly or indirectly manage subcontractors or have any payment obligations to subcontractors. Subcontracts will not relieve or discharge the Contractor from any duty, obligation, responsibility or liability arising under a Contract. Subcontracts shall note that the MBTA is not a party to the subcontract.

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or any portion thereof, or its right, title, or interest therein, if the cost exceeds 10% of the Contract amount, or if the Subcontractor/Supplier is to supply any of the major systems without written consent of the Authority.

In requesting such consent, the Contractor shall notify the Authority of the work to be performed by the proposed Subcontractor/Supplier and the Subcontractor's/Supplier's name.

The Subcontractor (Vendor or Supplier) shall look only to the Contractor for the payment of the claims arising out of any subcontract. The Contractor shall include in all agreements with Subcontractors/Suppliers, as pertaining to this Contract, that its Subcontractor/Supplier shall make no claim for payment against the Authority, its members or agents, for any work performed or thing done by reasons of the Subcontract, or for any other cause for payment that may arise by reason of the relationship created between the Contractor and the Subcontractor/Supplier by the Subcontract. Failure to promptly pay a Sub-Contractor for work performed where the Contractor has been paid by the MBTA shall constitute a material breach of the Contract between MBTA and Contractor.

11.14. Affirmative Action, Non-Discrimination in Hiring and Employment

The Contractor shall comply with all federal and state laws, rules and regulations promoting fair employment practices or prohibiting employment discrimination and unfair labor practices and shall not discriminate in the hiring of any applicant for employment nor shall any qualified employee be demoted, discharged or otherwise subject to discrimination in the tenure, position, promotional opportunities, wages, benefits or terms and conditions of their employment because of race, color, national origin, ancestry, age, sex, religion, disability, handicap, sexual orientation or for exercising any rights afforded by law. The Contractor commits to purchasing supplies and services from certified minority or women-owned businesses, small businesses or businesses owned by socially or economically disadvantaged persons or persons with disabilities.

11.15. Indemnification

The Contractor agrees to indemnify, save harmless, and defend the MBTA and all of its officers, agents, and employees from and against any and all third party suits, claims, or proceedings ("Claims"), and any losses, damages, charges or expenses, whether direct or indirect, and liability of every name and nature related to such Claims ("Liabilities") for or due to any loss or injury to persons or damages to real or tangible property to the extent caused by the Contractor or its employees, subcontractors or agents.

The MBTA agrees that the Contractor shall not be responsible for any Claims or Liabilities that may be imposed upon or incurred by or asserted against the Contractor caused or alleged to have been caused by any negligent act or negligent failure to act by MBTA or its agents, employees, or subcontractors. The foregoing shall not limit Contractor's indemnification obligations to the MBTA, including its duty to defend (at the MBTA's option), otherwise set forth in this section.

The Contractor being bound by all applicable state and federal regulations hereby expressly agrees to hold the MBTA harmless against all audit exceptions or denials of the reimbursement arising from the Contractor's violation of the terms and conditions of state and federal laws. The Contractor shall make restitution to the MBTA of such amounts of money as are withheld from the Authority by state, federal, county or local agencies or organizations due to the Contractor's noncompliance with applicable state and federal law, provided that in the event of any claim for such restitution, the MBTA provides the Contractor with prompt notice of such claim and allows the Contractor to contest such claim. Restitution shall be made no later than sixty (60) days after receipt of notification from the MBTA that monies are due to the MBTA.

Defense of Indemnification. The Contractor shall be notified in writing by the MBTA within a reasonable period of time of the assertion of any Claim against it that the Contractor has agreed to indemnify above (the "Indemnified Claim"). If the MBTA decides to itself conduct the defense of an Indemnified Claim against it or to conduct any other response itself, the Contractor shall reimburse the MBTA for all reasonable costs and expenses (including, without limitation, reasonable attorneys' fees and expenses) incurred by the MBTA in connection with the MBTA's defense of the Indemnified Claim against it and/or the conduct of all response actions. If the MBTA decides to have the Contractor defend the Indemnified Claim or handle the response action, the MBTA shall notify the Contractor of that decision in writing. In such instances, the Contractor shall bear the entire cost thereof and shall have sole control of the defense of any Indemnified Claim and all negotiations for its settlement or compromise provided that the MBTA is fully indemnified by the Contractor and that the settlement or compromise shall not include the admission of guilt or comparable plea, wrongdoing or negligence, the permitting or imposition of civil or criminal penalties or indictments, the entering of consent decrees or orders of any kind by the Contractor on behalf of the MBTA, or any other action that would materially prejudice the rights of the MBTA without the MBTA's express written approval. The MBTA shall cooperate fully with the Contractor in the defense of any Indemnified Claim.

11.16. Waivers

Forbearance or indulgence in any form or manner by a party shall not be construed as a waiver, nor shall it in any way limit the legal or equitable remedies available to that party. No waiver by either party of any default or breach shall constitute a waiver of any subsequent default or breach.

11.17. Risk of Loss

Risk of loss or damage with respect to equipment or material covered by the Contract Documents shall pass to the Authority when "delivered" within the meaning of Specification VE21-054 at the MBTA Bus Operations designated delivery point, unless the loss or damage is determined to be the direct result of faulty workmanship by the Contractor or by faulty material supplied by the Contractor.

Title to the Authority's equipment shall remain in the Authority and shall not be divested by any repairs that may be made to the property of the Authority.

11.18. Forum, Choice of Law and Mediation

Any actions arising out of a Contract shall be governed by the laws of Massachusetts, and shall be brought and maintained in a State or federal court in Massachusetts which shall have exclusive jurisdiction thereof. The MBTA and the Contractor may agree to voluntary mediation through the Massachusetts Office of Dispute Resolution (MODR) of any Contract dispute and will share the costs of such mediation. No legal or equitable rights of the parties shall be limited by this Section.

11.19. Interpretation, Severability, Conflicts with Law, Integration

Any amendment or attachment to any Contract which contains conflicting language or has the affect of a deleting, replacing or modifying any printed language of these MBTA Terms and Conditions, shall be interpreted as superseded by the official printed language. If any provision of a Contract is found to be superseded by state or federal law or regulation, in whole or in part, then both parties shall be relieved of all obligations under that provision only to the extent necessary to comply with the superseding law, provided however, that the remaining provisions of the Contract, or portions thereof, shall be enforced to the fullest extent permitted by law. All amendments must be executed by the parties in accordance with Section 1.1.1 of these MBTA Terms and Conditions (Section 1.1). The printed language of the Standard Contract Form (Section 7), which incorporates by reference these MBTA Terms and Conditions, shall supersede any conflicting verbal or written agreements relating to the performance of a Contract, or attached thereto, including contract forms, purchase orders or invoices of the Contractor. The order of priority of documents to interpret a Contract shall be as follows: any applicable federal provisions, any supplemental provisions, any negotiated terms and conditions allowable pursuant to law or regulation; the printed language of the MBTA Terms and Conditions; the Standard Contract; the MBTA's Request for Response/Proposal/Bid (RFR/RFP/IFB) solicitation document; and the Contractor's Response to the RFR/RFP/IFB solicitation, excluding any language stricken by the MBTA as unacceptable.

11.20. Entire Agreement

This Agreement and any attachments or documents incorporated herein by inclusion or by reference, constitutes the complete and entire Agreement between the Contractor and the MBTA (hereinafter the "Parties") and supersedes any prior representations, understandings, communications, commitments, agreements or proposals,

oral or written, and is not intended to confer upon any person other than the Parties any rights or remedies hereunder.

11.21. Contractor Certifications and Legal References

The Contractor makes all certifications required under this Contract under the pains and penalties of perjury, and agrees to provide any required documentation upon request to support compliance, and agrees that all terms governing performance of this Contract and doing business in Massachusetts are attached or incorporated by reference herein.

11.21.1. MBTA and Contractor Ownership Rights

The Contractor certifies and agrees that the MBTA is entitled to ownership and possession of all “deliverables” purchased or developed with Contract funds.

11.21.2. Qualifications

The Contractor certifies it is qualified and shall at all times remain qualified to perform this Contract; that performance shall be timely and meet or exceed industry standards for the performance required, including obtaining requisite licenses, registrations, permits, resources for performance, and sufficient professional, liability; and other appropriate insurance to cover the performance. If the Contractor is a business, the Contractor certifies that it is listed under the Secretary of State’s website as licensed to do business in Massachusetts, as required by law.

11.21.3. Business Ethics and Fraud, Waste and Abuse Prevention

The Contractor certifies that performance under this Contract, in addition to meeting the terms of the Contract, will be made using ethical business standards and good stewardship of taxpayer and other public funding and resources to prevent fraud, waste and abuse.

11.21.4. Collusion

The Contractor certifies that this Contract has been offered in good faith and without collusion, fraud or unfair trade practices with any other person, that any actions to avoid or frustrate fair and open competition are prohibited by law, and shall be grounds for rejection or disqualification of a Response or termination of this Contract.

Included with the response to RFP 1F-22, the Bidder shall sign an affidavit stating that Bidder understands that any Proposal submitted to the MBTA is made without collusion with any other Bidder submitting a Proposal on the same commodity/service, and is in all respects fair and without fraud.

11.21.5. Public Records and Access

The Contractor shall provide full access to records related to performance and compliance to the MBTA pursuant to G.L. c. 11, s.12 for seven (7) years beginning on the first day after the final payment under this Contract or such longer period necessary for the resolution of any litigation, claim, negotiation, audit or other inquiry involving this Contract. Access to view Contractor records related to any breach or allegation of fraud, waste and/or abuse may not be denied and Contractor cannot claim confidentiality or trade secret protections solely for viewing but not retaining documents. Routine Contract performance

compliance reports or documents related to any alleged breach or allegation of non-compliance, fraud, waste, abuse or collusion may be provided electronically and shall be provided at Contractor's own expense. Reasonable costs for copies of non-routine Contract related records shall not exceed the rates for public records under the Massachusetts Public Records Law.

11.21.6. Debarment

The Contractor certifies that neither it nor any of its subcontractors are currently debarred or suspended by the federal or state government under any law or regulation.

11.21.7. Applicable Laws

The Contractor shall comply with all applicable state laws and regulations including but not limited to the applicable Massachusetts General Laws; Code of Massachusetts Regulations 801 CMR 21.00 (Procurement of Commodity and Service Procurements); M.G.L. c. 66A; and the Massachusetts Constitution Article XVIII if applicable.

11.21.8. Tax Law Compliance

The Contractor certifies under the pains and penalties of perjury tax compliance with Federal tax laws; state tax laws including but not limited to G.L. c. 62C, G.L. c. 62C, s. 49A; compliance with all state tax laws, reporting of employees and contractors, withholding and remitting of tax withholdings and child support and is in good standing with respect to all state taxes and returns due; reporting of employees and contractors under G.L. c. 62E, withholding and remitting child support including G.L. c. 119A, s. 12; TIR 05-11; New Independent Contractor Provisions and applicable TIRs.

11.21.9. Bankruptcy, Judgments, Potential Structural Changes, Pending

Legal Matters and Conflicts

The Contractor certifies it has not been in bankruptcy and/or receivership within the last three calendar years, and the Contractor certifies that it will immediately notify the Department in writing at least 45 days prior to filing for bankruptcy and/or receivership, any potential structural change in its organization, or if there is any risk to the solvency of the Contractor that may impact the Contractor's ability to timely fulfill the terms of this Contract or Amendment. The Contractor certifies that at any time during the period of the Contract the Contractor is required to affirmatively disclose in writing to the Department Contract Manager the details of any judgment, criminal conviction, investigation or litigation pending against the Contractor or any of its officers, directors, employees, agents, or subcontractors, including any potential conflicts of interest of which the Contractor has knowledge, or learns of during the Contract term. Notwithstanding the foregoing, Contractor shall not be obligated to disclose (i) any such matter that is not reasonably related to the services provided pursuant to the Contractor's Contract with the MBTA, or (ii) any such matter that has does not affect Contractor's continued compliance with all technical and financial conditions of its Contract with the MBTA. Law firms or Attorneys providing legal services are required to identify any potential conflict with representation of any Department client in accordance with Massachusetts Board of Bar Overseers (BBO) rules.

11.21.10. Protection of Commonwealth Data, Personal Data and Information

The Contractor certifies that all steps will be taken to ensure the security and confidentiality of all Commonwealth/MBTA data for which the Contractor becomes a holder, either as part of performance or inadvertently during performance, with special attention to restricting access, use and disbursement of personal data and information under M.G.L. c. 93H and c. 66A and other applicable state and federal privacy requirements. The Contractor shall comply with M.G.L. c. 93I for the proper disposal of all paper

and electronic media, backups or systems containing personal data and information. The Contractor shall also ensure that any personal data or information transmitted electronically or through a portable device is properly encrypted using (at a minimum) the Commonwealth's "Cryptographic Management Standard" set forth in the Enterprise Information Security Policies and Standards published by the Executive Office for Technology, Services and Security (TSS), or a comparable Standard prescribed by the MBTA. Contractors with access to credit card or banking information of Commonwealth/MBTA customers certify that the Contractor is PCI compliant in accordance with the Payment Card Industry Council Standards, and shall provide confirmation compliance during the Contract. The Contractor shall immediately notify the MBTA in the event of any security breach including the unauthorized access, disbursement, use or disposal of personal data or information, and in the event of a security breach, the Contractor shall cooperate fully with the MBTA and provide access to any information necessary for the MBTA to respond to the security breach and shall be fully responsible for any damages associated with the Contractor's breach including but not limited to G.L. c. 214, s. 3B.

For all Contracts involving the Contractor's access to personal information, as defined in G.L. c. 93H, and personal data, as defined in G.L. c. 66A, or access to MBTA or Commonwealth systems containing such information or data, Contractor certifies under the pains and penalties of perjury that the Contractor (1) has read M.G.L. c. 93H and c. 66A and agrees to protect any and all personal information and personal data; and (2) has reviewed all of the Enterprise Information Security Policies and Standards published by the Executive Office for Technology Services and Security (TSS), or stricter standards prescribed by the MBTA. Notwithstanding any contractual provision to the contrary, in connection with the Contractor's performance under this Contract, for all public authorities, executive offices, boards, commissions, agencies, departments, divisions, councils, bureaus, and offices, now existing and hereafter established, the Contractor shall: (1) obtain a copy, review, and comply with any pertinent security guidelines, standards, and policies; (2) comply with all Enterprise Information Security Policies and Standards published by the Executive Office for Security Services and Technology (TSS), or a comparable set of policies and standards ("Information Security Policy") as prescribed by the MBTA; (3) communicate and enforce such security guidelines, standards, policies and the applicable Information Security Policy among all employees (whether such employees are direct or contracted) and subcontractors; (4) implement and maintain any other reasonable appropriate security procedures and practices necessary to protect personal information and data to which the Contractor is given access by the MBTA from the unauthorized access, destruction, use, modification, disclosure or loss; (5) be responsible for the full or partial breach of any of these terms by its employees (whether such employees are direct or contracted) or subcontractors during or after the term of this Contract, and any breach of these terms may be regarded as a material breach of this Contract; (6) in the event of any unauthorized access, destruction, use, modification, disclosure or loss of the personal information or personal data (collectively referred to as the "unauthorized use"): (a) immediately notify the MBTA if the Contractor becomes aware of the unauthorized use; (b) provide full cooperation and access to information necessary for the MBTA to determine the scope of the unauthorized use; and (c) provide full cooperation and access to information necessary for the MBTA and the Contractor to fulfill any notification requirements. Breach of these terms may be regarded as a material breach of this Contract, such that the Commonwealth and MBTA may exercise any and all contractual rights and remedies, including without limitation indemnification under Section 11.15 of MBTA's Terms and Conditions, withholding of payments, Contract suspension, or termination. In addition, the Contractor may be subject to applicable statutory or regulatory penalties, including and without limitation, those imposed pursuant to G.L. c. 93H and under G.L. c. 214, § 3B for violations under M.G.L c. 66A.

11.21.11. Corporate and Business Filings and Reports

The Contractor certifies compliance with any certification, filing, reporting and service of process requirements of the Secretary of and other Departments as related to its conduct of business in the Commonwealth; and with its incorporating state (or foreign entity).

11.21.12. Employer Requirements

Contractors that are employers certify compliance with applicable state and federal employment laws or regulations, including but not limited to G.L. c. 5, s. 1 (Prevailing Wages for Printing and Distribution of Public Documents); G.L. c. 7, s. 22 (Prevailing Wages for Contracts for Meat Products and Clothing and Apparel); minimum wages and prevailing wage programs and payments; unemployment insurance and contributions; workers' compensation and insurance, child labor laws, AGO fair labor practices; G.L. c. 149 (Labor and Industries); G.L. c. 150A (Labor Relations); G.L. c. 151 and 455 CMR 2.00 (Minimum Fair Wages); G.L. c. 151A (Employment and Training); G.L. c. 151B (Unlawful Discrimination); G.L. c. 151E (Business Discrimination); G.L. c. 152 (Workers' Compensation); G.L. c. 153 (Liability for Injuries); 102 CMR 12.00 (Dependent Care Assistance Program); 29 USC c. 8 (Federal Fair Labor Standards); 29 USC c. 28 and the Federal Family and Medical Leave Act and M.G.L. c. 175M (Family and Medical Leave).

11.21.13. Federal And State Laws And Regulations Prohibiting Discrimination

Contractors certify compliance with applicable state and federal anti-discrimination laws including but not limited to the Federal Equal Employment Opportunity (EEO) Laws the Americans with Disabilities Act; 42 U.S.C Sec. 12,101, et seq., the Rehabilitation Act, 29 USC c. 16 s. 794; 29 USC c. 16. s. 701; 29 USC c. 14, 623; the 42 USC c. 45; (Federal Fair Housing Act); G.L. c. 151B (Unlawful Discrimination); G.L. c. 151E (Business Discrimination); the Public Accommodations Law G.L. c. 272, s. 92A; G.L. c. 272, s. 98 and 98A, Massachusetts Constitution Article CXIV and G.L. c. 93, s. 103; 47 USC c. 5, sc. II, Part II, s. 255 (Telecommunication Act; Chapter 149, Section 105D, G.L. c. 151C, G.L. c. 272, Section 92A, Section 98 and Section 98A, and G.L. c. 111, Section 199A, and Massachusetts Disability-Based Non-Discrimination Standards For Executive Branch Entities, and related Standards and Guidance, authorized under Massachusetts Executive Order or any disability-based protection arising from state or federal law or precedent. See also MCAD and MCAD links and Resources.

11.21.14. Right-to-Know Law

The Contractor shall certify that it will comply with the Massachusetts Right-To-Know Law, Chapter 470 of the Acts of 1983. Additionally, the Contractor agrees to submit a Safety Data Sheet (SDS) for each toxic or hazardous substance, or mixture containing such substance, pursuant to M.G.L. c. 111F §§ 8, 9, and 10, and the regulations contained in 454 CMR § 21.06 when deliveries are made.

The Contractor agrees to deliver all containers properly labeled pursuant to M.G.L. c. 111F § 7 and regulations contained in 454 CMR § 21.05. Failure to submit a SDS and/or label on each container will place the Contractor in noncompliance with the purchase order.

Copies of all SDSs shall be provided to the Technical Project Manager.

11.21.15. Other Damages

LIMITATION OF LIABILITY

Notwithstanding anything herein to the contrary, the Contractor's maximum aggregate liability for any loss or damages (other than patent infringement, death or personal injury) incurred by the MBTA as a result of or in consequence of the acts or omissions of the Contractor, its employees, subcontractors or agents in the performance of services covered by this Agreement shall not exceed one hundred percent (100%) of the Contract value plus any adjusted value per executed change order; provided, however, that

if the Contractor's applicable insurance coverage is greater than this amount, the limit of liability for the Contract shall be the total insurance coverage.

IT IS AGREED AND UNDERSTOOD THAT THE MBTA SHALL BE ENTITLED TO RECOVER DIRECT DAMAGES INCLUDING "BENEFIT-OF-THE-BARGAIN" EXPECTATION DAMAGES AND DAMAGES FOR BREACH OF WARRANTY SUBJECT TO THE LIMITATION OF LIABILITY, AND THAT IN NO EVENT SHALL CONTRACTOR BE LIABLE FOR ANY LOSS OF PROFITS, LOSS OF REVENUES OR LOSS OR FAILURE TO REALIZE ANTICIPATED SAVINGS OR EFFICIENCIES ARISING IN CONNECTION WITH THIS AGREEMENT.

11.21.16. Northern Ireland Certification

Pursuant to G.L. c. 7 s. 22C for state agencies, state authorities, the House of Representatives or the state Senate, by signing this Contract the Contractor certifies that it does not employ ten or more employees in an office or other facility in Northern Ireland and if the Contractor employs ten or more employees in an office or other facility located in Northern Ireland the Contractor certifies that it does not discriminate in employment, compensation, or the terms, conditions and privileges of employment on account of religious or political belief; and it promotes religious tolerance within the work place, and the eradication of any manifestations of religious and other illegal discrimination; and the Contractor is not engaged in the manufacture, distribution or sale of firearms, munitions, including rubber or plastic bullets, tear gas, armored vehicles or military aircraft for use or deployment in any activity in Northern Ireland.

11.21.17. Pandemic, Disaster or Emergency Performance

In the event of a serious emergency, pandemic or disaster outside the control of the MBTA, the MBTA may negotiate emergency performance from the Contractor to address the immediate needs of the MBTA even if not contemplated under the original Contract or procurement. Payments are subject to appropriation and other payment terms.

11.22. Executive Orders

For covered Executive state Departments, the Contractor certifies compliance with applicable Executive Orders (see also Massachusetts Executive Orders), including but not limited to the specific orders listed below. A breach during period of a Contract may be considered a material breach and subject Contractor to appropriate monetary or Contract sanctions.

11.22.1. Executive Order 481. Prohibiting the Use of Undocumented

Workers on State Contracts

For all state agencies in the Executive Branch, including all executive offices, boards, commissions, agencies, Departments, divisions, councils, bureaus, and offices, now existing and hereafter established, by signing this Contract the Contractor certifies under the pains and penalties of perjury that they shall not knowingly use undocumented workers in connection with the performance of this Contract; that, pursuant to federal requirements, shall verify the immigration status of workers assigned to a Contract without engaging in unlawful discrimination; and shall not knowingly or recklessly alter, falsify, or accept altered or falsified documents from any such worker.

11.22.2. Executive Order 130. Anti-Boycott

The Contractor warrants, represents and agrees that during the time this Contract is in effect, neither it nor any affiliated company, as hereafter defined, participates in or cooperates with an international boycott (See IRC § 999(b)(3)-(4), and IRS Audit Guidelines Boycotts) or engages in conduct declared to be unlawful by G.L. c. 151E, s. 2. A breach in the warranty, representation, and agreement contained in this paragraph, without limiting such other rights as it may have, the MBTA shall be entitled to rescind this Contract. As used herein, an affiliated company shall be any business entity of which at least 51% of the ownership interests are directly or indirectly owned by the Contractor or by a person or persons or business entity or entities directly or indirectly owning at least 51% of the ownership interests of the Contractor, or which directly or indirectly owns at least 51% of the ownership interests of the Contractor.

11.22.3. Conflict of Interest and Executive Order 346. Hiring of State Employees By State Contractors

Massachusetts Conflict of Interest Law, G.L. c. 268A, governs the conduct of all public officials and employees, including all dealings with potential contractors. It is the responsibility of Contractor to ensure compliance with the Commonwealth's Conflict of Interest Laws and avoid any conduct which might result in or give the appearance of creating for the Authority or its representatives in their relationship with the Contractor any conflicts of interest or favoritism and/or the appearance thereof or any conduct which might result failure to comply with G.L., c. 268A. Non-compliance with these Conflict of Interest terms shall constitute a material breach of this Contract.

For purposes of this solicitation, it is understood and agreed that no gift, loan or other thing has been or will be given to any employee, agent or officer of the MBTA by the Bidder, Bidder's employees, subcontractors, or agents in connection with the award or performance of this Contract. It is further understood and agreed that no Board member, officer, or employee of the MBTA; no officer or employee of any independent authority or political subdivision of the Commonwealth of Massachusetts, no officer, employee, or elected official of the Commonwealth of Massachusetts, executive or legislative of any city, county, or town within the 175 cities and towns serviced by the MBTA; and no member or delegate to the Congress of the United States, during his/her tenure shall have any financial interest, direct or indirect, in this Contract or the proceeds thereof.

If, during the performance of this Contract and any extension thereof, the Contractor becomes aware of any relationship, financial interest, or other activity in which it or an affiliated person or company is involved which is not in compliance with these provisions, the Contractor shall promptly notify the Authority's Contracting Officer in writing and fully disclose all circumstances thereof. The Authority reserves the right to grant an exception to the requirements of this Section, if so allowed by law, and notify the Contractor thereof. If the Authority does not grant an exception, the Contractor shall, within ten (10) days of written notice from the Authority, take all action necessary to comply with the terms stated herein.

The Bidder shall certify compliance with these terms and the Massachusetts Conflict of Interest Laws.

Additionally, Contractor certifies compliance with both the conflict of interest law G.L. c. 268A, s. 5 (f) and E.O. 346, which impose limitations regarding the hiring of state employees by private companies contracting with the MBTA. A privatization contract shall be deemed to include a specific prohibition against the hiring at any time during the term of Contract, and for any position in the Contractor's company, any state management employee who is, was, or will be involved in the preparation of the RFP,

the negotiations leading to the awarding of the Contract, the decision to award the Contract, and/or the supervision or oversight of performance under the Contract.

11.22.4. Executive Order 444. Disclosure of Family Relationships with Other State Employees

Each person applying for employment (including Contract work) within the Executive Branch under the Governor must disclose in writing the names of all immediate family related to immediate family by marriage who serve as employees or elected officials of the Commonwealth. All disclosures made by applicants hired by the Executive Branch under the Governor shall be made available for public inspection to the extent permissible by law by the official with whom such disclosure has been filed.

11.22.5. Executive Orders 523, 526, and 565

Executive Order 523 (Establishing the Massachusetts Small Business Purchasing Program). Executive Order 526 (Order Regarding Non-Discrimination, Diversity, Equal Opportunity and Affirmative Action which supersedes Executive Order 478). Executive Order 565 (Reaffirming and Expanding the Massachusetts Supplier Diversity Program). All programs, activities, and services provided, performed, licensed, chartered, funded, regulated, or contracted for by the state shall be conducted without unlawful discrimination based on race, color, age, gender, ethnicity, sexual orientation, gender identity or expression, religion, creed, ancestry, national origin, disability, veteran's status (including Vietnam-era veterans), or background. The Contractor and any subcontractors may not engage in discriminatory employment practices. The Contractor certifies compliance with applicable federal and state laws, rules, and regulations governing fair labor and employment practices. The Contractor also commits to purchase supplies and services from certified minority, women, veteran, service-disabled veteran, LGBT or disability-owned businesses, small businesses, or businesses owned by socially or economically disadvantaged persons; and Contractor commits to comply with any applicable Department contractual requirements pertaining to the employment of persons with disabilities pursuant to M.G.L. c. 7 s. 61(s). These provisions shall be enforced through the contracting Department, OSD, and/or the Massachusetts Commission Against Discrimination. Any breach shall be regarded as a material breach of the contract that may subject the contractor to appropriate sanctions.

11.22.6. Laws and Regulations Prohibiting Discrimination and Human Trafficking

Contractors acknowledge and certify as a condition of this Contract that they are responsible for complying fully with all state and federal laws prohibiting discrimination, human trafficking, and forced labor, including but not limited to Chapter 178 of the Acts of 2011.

11.23. Supplemental Provisions

11.23.1. Applicability

Where applicable, these Supplemental Provisions shall apply to this RFP. In the event of a conflict or disparity between these Supplemental Provisions and Standard Terms & Conditions, the Supplemental Provisions govern.

11.23.2. Security Requirements

The Contractor shall certify that it will comply with the MBTA's Security Requirements as stated herein. The selected Contractor shall:

1. Submit a complete list of Contractor's employees, subcontractors, and agents that will perform work on MBTA property under this Contract. This list must be submitted prior to eligibility consideration for payment of delivery or completion of the first milestone. At a minimum, the list shall include:
 - a. Name and Employee Number/Identifier
 - b. Address
 - c. Job Title
 - d. Hours and Location of Work

Note: Immediate notification, in writing, is required for listed employees, subcontractors, and agents who leave Contractor's (direct or indirect) employment and/or any new employees, subcontractors or agents who are to be added to this list. Contractor is required to provide, upon request by the MBTA, periodic updates of the list throughout the life of the Contract.

2. Conduct for all current and future employees performing work under this Contract, a legally available criminal background check, including a Criminal Offender Record Information (CORI) background check with the Massachusetts Criminal History Systems Board and a driver's history check with the Massachusetts registry of Motor vehicles (if applicable). The CORI check shall include a Level II Sex Offenders Registry check. To the extent not already available to the Contractor, the Contractor shall apply for and make best efforts to obtain CORI access. The Contractor shall provide written documentation to the Authority that demonstrates the Contractor's compliance with the aforementioned requirements. Furthermore, the Contractor shall conduct these background and driver history checks at least once every two (2) years, or as otherwise specified by the MBTA. Any employee of the Contractor's with a history that includes a felony conviction, any conviction for theft, or who appears otherwise unsuitable to perform the work that is the subject of this solicitation throughout the Term of this Agreement or any extensions thereof, shall not be assigned by the Contractor to perform work under this Agreement.

The MBTA reserves the right to have MBTA Transit Police perform the required background checks, and shall promptly notify the Contractor in writing of any such action.

3. Distribute an MBTA-issued photograph Contractor identification badge to all Contractor employees, subcontractors, and agents who work on MBTA property. The contractor shall provide a current (less than 1 year old) photograph to the MBTA, along with the required completed badge issuance paperwork prior to being issued the badges. The following information shall be listed on the back of the contractor identification badges: training certifications, safety training, and other related security training required by the MBTA. No employee, subcontractor or agent of the Contractor will be allowed on MBTA property without clearly displaying the MBTA-issued identification badge on their person.
4. Insure that Contractor's employees, subcontractors, and agents:
 - a. Are not allowed on MBTA property except as required for stated work;
 - b. Are not allowed on MBTA property before and after service hours unless explicitly, contractually required to be there; and
 - c. Are forbidden from carrying firearms on MBTA property.

5. Provide to the MBTA, upon its request, any documents that pertain to:
 - a. Contractor employee, subcontractor or agent conduct on MBTA property;
 - b. Security training; and
 - c. Monitoring/auditing of Contractor employees or agents while on MBTA property.
6. If, at any time during the term of this Agreement, and also during any and all extensions thereof, the MBTA establishes new or revised security policies and procedures as they relate to the Contractor's performance under this Agreement, the Contractor shall comply with such policies and procedures as deemed reasonable by the MBTA and the Contractor.]

11.23.3. Right-of-Way Safety Training Requirements

In the event the Contractor's work is to be performed in proximity to railroad, bus ways, or subway tracks, the Contractor shall obtain appropriate Right of Way safety training from the MBTA before commencing work.

11.23.4. Workplace Environment

The Contractor and its employees shall comply with the MBTA Dignity in the Workplace and 8 Free Workplace requirements. The Contractor's employees who violate either of these policies are to be removed from this Contract and are not to be employed on another MBTA contract. The Contractor also agrees to include the following requirements in each subcontract entered into as part of this Agreement.

MBTA Dignity in the Workplace Policy. In accordance with governing statutes, regulations, and collective bargaining agreements, and consistent with its existing policies, the MBTA demands of itself and its employees that all work and work-related activities be conducted with complete respect for the dignity of all employees. In practice, this means that no action, inaction or language which would offend a reasonable employee or which any reasonable employee deems unwelcome will be tolerated. All personnel decisions will be based solely on objective consideration of relevant articulated factors. No personnel decision will directly or indirectly be based on consideration of an employee's age, race, sex, religion, creed, color, sexual orientation, national origin, disability/handicap, ancestry or Vietnam era veteran's status. These prohibitions on harassment and impermissible discrimination are absolute.

Drug And Alcohol Free Workplace Requirement. The Contractor, Contractor's employees, vendors, visitors, and volunteers are to be free of the effect of drugs, alcohol, controlled substances or other prohibitive substances when they are on MBTA property or performing MBTA business. In addition, all referenced parties are prohibited from using, possessing, selling or distributing any drugs, alcohol, controlled substances or other prohibited substances when they are on MBTA property or performing MBTA business. It is the responsibility of the Contractor to advise its employees of this requirement and to ensure that its employees meet this "fitness for duty" standard. Violators of this policy will not be allowed to remain on MBTA property or to continue conducting business for or with the MBTA. The Contractor will submit to the Authority within thirty (30) days of a Drug and Alcohol violation, a written report documenting the actions taken with regard to any of its employees who violate this policy. The Contractor will accept all liability arising from violation of this policy by his/her employees.

Anti-Drug and Alcohol Misuse Prevention Program: The services to be provided, either directly or indirectly, under contract for the MBTA to meet the criteria for drug and alcohol testing as mandated by the Federal Transit Administration (FTA).

Employees who perform safety-sensitive functions must be included in an employer substance abuse management program. The FTA has determined the safety-sensitive functions are performed by those who:

- Operate passenger service vehicles including when not in passenger service.
- Operate non-passenger service vehicles that require drivers to hold Commercial Drivers Licenses - CDLs.
- Dispatch or control passenger service vehicles.
- Maintain passenger service vehicles or equipment used in passenger service.
- Provide security and carry a firearm.

The definition of safety-sensitive includes supervisors who perform these functions. Supervisors of employees in the categories who do not themselves perform these functions are excluded.

The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 CFR Parts 653, 654 and 40, and permit any authorized representatives of the United States Department of Transportation or its operating administrations, the Commonwealth of Massachusetts, or the MBTA, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Parts 653, 654 and 40 and review the testing process. The Contractor agrees further to certify annually its compliance with Parts 653, 654 and 40 before March 15 of each contractual year and to submit the Management Information System (MIS) reports before March 15 of each year of the contract to Director of Occupational Health Services and Workmen's Compensation, MBTA, 120 Boylston Street – 6th Floor, Boston, MA 02116. To certify compliance the contractor shall use the Substance Abuse Certifications in the Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements, which are published annually in the Federal Register.

Bidders must submit, with their bid/proposal, the Certificate of Compliance with Anti-Drug and Alcohol Testing Programs.

Confidentiality: The information required to be submitted with proposal/bid shall be handled as confidential data and utilized on a “need to know” basis, to the extent permitted by law.

Labor Harmony: Prevailing Wage Rates Apply. The Contractor shall furnish labor that can work with all other elements of labor employed or to be employed at the MBTA. The Contractor agrees that all persons in its employment for the purpose of managing or working on the MBTA's premises shall conduct themselves at all times in an orderly and proper manner so as not to annoy or offend persons or MBTA employees using the premises. Moreover, the Contractor, at the request of the Authority will, for cause shown, remove from work on the Contract any employee who shall cause any annoyance or offense as aforesaid. The Contractor further covenants and agrees that, in the exercise of the rights and privileges granted, its employees or representatives will not deface or damage the property of the MBTA, deposit or scatter any rubbish, debris, waste, litter, or other matter in or about said premises. The Contractor agrees to assume liability for actions on the part of its employees.

11.24. Federal Requirements

11.24.1. Federal Transit Administration Required Clauses

Contractor shall ensure that all clauses applicable to its work, or service, performed for the MBTA pursuant to this contract are adhered to by the contractor and sub-contractors when applicable.

In the event of a conflict between these FTA required clauses and other Terms and Conditions with respect to this contract, these clauses shall govern.

(FTA Required Clauses follow)

It is the responsibility of the proposer/ bidder to ensure that all clauses applicable to the work or services related to this contract are adhered to by the Contractor and its Sub-contractors when applicable.

Contract Clause	Applicability to Type of Contract
Fly America Requirements	When Transportation Paid by FTA Funds
Buy America Requirements	Value > 100K for Construction, Goods, Rolling Stock
Charter Bus Requirements	Operational Service
School Bus Requirements	Operational Service
Cargo Preference Requirements	Equipment/Material/Commodities Transported by Ocean
Seismic Safety Requirements	New Construction/Additions
Special Department of Labor (DOL) Equal Employment Clause	Value > \$10K for Construction
Energy Conservation Requirements	All
Clean Water Requirements	Value > \$100K
Bus Testing	Rolling Stock Acquisition
Pre-Award and Post Delivery Audit Requirements	Rolling Stock Acquisition
Lobbying	All
Access to Records and Reports	All
Federal Changes	All
Bonding Requirements	Construction > \$100K
Clean Air	Value > \$100K
Recycled Products	Value > \$10K In Fiscal Year
Davis-Bacon and Copeland Anti-Kickback Acts	Construction > \$2000
Contract Work Hours and Safety Standards Act	Construction >\$2000, Rolling Stock, Operational >\$2,500
No Government Obligation to Third Parties	All
Program Fraud and False or Fraudulent statements and Related Acts	All
Termination	Value > \$10K
Government-Wide Debarment and Suspension (Non-procurement)	Value > \$25K
Privacy Act	All

Contract Clause	Applicability to Type of Contract
Civil Rights Requirements	All
ADA Access Requirements	All
Breaches and Dispute Resolution	Value > \$100K
Patent and Rights in Data	Research Projects Only
Transit Employee Protective Agreements	Transit Operations
Disadvantaged Business Enterprise (DBE)	All
Incorporation of FTA Terms	All
Drug and Alcohol Testing	Operational Service/Safety Sensitive
Transit Vehicle Manufacturer (TVM) Certifications	Rolling Stock, All Vehicle Procurements
Metric Requirements	Sealed Bid Procurements, Rolling Stock, Construction
Conformance with National ITS Architecture	Contracts and Solicitations for ITS projects only
Corridor Preservation	Right of Way Development
Veterans Employment	Capital Projects

11.24.2. Fly America Requirements

49 U.S.C. §40118 41 CFR Part 301-10.131 - 301-10.143

Applicability to Contracts: The Fly America requirements apply to the transportation of persons or property, by air, between a place in the U.S. and a place outside the U.S., or between places outside the U.S., when the FTA will participate in the costs of such air transportation. Transportation on a foreign air carrier is permissible when provided by a foreign air carrier under a code share agreement when the ticket identifies the U.S. air carrier's designator code and flight number. Transportation by a foreign air carrier is also permissible if there is a bilateral or multilateral air transportation agreement to which the U.S. Government and a foreign government are parties and which the Federal DOT has determined meets the requirements of the Fly America Act.

Flow Down Requirements: The Fly America requirements flow down from MBTA to first tier contractors, who are responsible for ensuring that lower tier contractors and sub-contractors are in compliance.

Fly America: The Contractor agrees to comply with 49 U.S.C. 40118 (the "Fly America" Act) in accordance with the General Services Administration's regulations at 41 CFR Part 301-10.131 - 301-10.143, which provide that recipients and sub-recipients of Federal funds and their contractors are required to use U.S. Flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property, to the extent such service is available, unless travel by foreign air carrier is a matter of necessity, as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a

foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements. The Contractor agrees to include the requirements of this section in all subcontracts that may involve international air transportation.

11.24.3. Buy America Requirements

49 U.S.C. 5323(j)

49 U.S.C. 5323(h)

49 CFR Part 661

The Bidder is to be governed by the latest provisions of the "Buy America" clause of the Surface Transportation Act of 1982, the Federal Mass Transportation Act of 1987 and Uniform Relocation Assistance Act of 1987 and execute the "Buy America" Certificate found in RFP Attachment 3 to this Document. The separate requirements for rolling stock are set out in 5323(j)(2)(c) and 49 CFR part 661.11. The Bidder agrees to comply with 49 U.S.C. 5323(j) and 49 CFR Part 661 Section 165

Notwithstanding any other provisions of law, Secretary of Transportation shall not obligate any funds authorized to be appropriated by this Act or by any Act amended by the Act, or after the date of enactment of this Acts, Title 23, United States Code, the Urban Mass Transportation Act of 1964, or the Surface Transportation Act of 1978 and 1982, and Federal Mass Transportation Act of 1987 and administered by the Department of Transportation, unless steel manufactured products used in such projects are produced in the United States.

The provisions of Subsection "a" of this Section shall not apply where the Secretary finds:

1. That their application would be inconsistent with the public interest.
2. That such material and products are not produced in the United States in sufficient and reasonably available quantities and of a satisfactory quality.
3. In the case of procurement of bus and other rolling stock (including train control, communication, and traction power equipment) under the Urban Mass Transportation Act of 1964, and the Federal Mass Transportation Act of 1987, that:
 - a. The cost of components and subcomponents which are produced in the United States is more than 60 per centum of the cost of all components of the vehicle or equipment described in this paragraph.
 - b. Final assembly of the vehicle or equipment described in this paragraph has taken place in the United States.
 - c. For purposes of this Section, calculating components' cost, labor cost involved in final assembly shall not be included in this calculation.
 - d. The Secretary of Transportation shall not impose any limitation or condition on assistance provided under this Act, the Urban Mass Transportation Act of 1987 or Title 23, United States Code, which restricts any State from imposing more stringent requirements than this section, the use of articles, materials, and supplies mined, produced or manufactured in foreign countries in projects carried out with such assistance or restricts any recipient of such assistance from complying with such State imposed requirements.

- e. Section 401 of the Surface Transportation Acts of 1978 is repealed.
- 4. That the inclusion of domestic material will increase the cost of the overall project contract by more than 25 per centum in case of all projects including but not limited to the acquisition of rolling stock.

Flow Down Requirements: The Buy America requirements flow down from MBTA to first tier Contractor, who are responsible for ensuring that lower tier contractors and sub-contractors are in compliance.

Buy America: The Contractor agrees to comply with 49 U.S.C. 5323(j) as amended by MAP-21, 49 U.S.C. 5323(h), 49 CFR Part 661, and FAST Act (Pub. L. 114-94) which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver. General waivers are listed in 49 CFR 661.7 and was amended by Section 3011 of the FAST Act (Pub. L. 114-94). Separate requirements for rolling stock are set out at 5323(j)(2)(C) and 49 CFR 661.11. Rolling stock not subject to a general waiver must be manufactured in the United States and have a sixty percent (60%) domestic content for FY16 & FY17; sixty-five percent (65%) domestic content for FY18 & FY19; and seventy percent (70%) domestic content for FY20 & beyond.

General waivers for small purchases do not apply to Contractor's equipment purchases when Contractor's contract value exceeds \$150,000 in value. Contractor must submit to MBTA the appropriate certification using a Buy America Certification Form with all bids on FTA-funded contracts, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as non-responsive. This requirement does not apply to lower tier sub-contractors.

11.24.4. Charter Bus Requirements

49 U.S.C. 5323(d) 49 CFR Part 604

Applicability to Contracts: The Charter Bus requirements apply to the following type of contract: Operational Service Contracts.

Flow Down Requirements: The Charter Bus requirements flow down from MBTA to first tier service Contractors.

Charter Service Operations: The contractor agrees to comply with 49 U.S.C. 5323(d) and 49 CFR Part 604, which provides that recipients and sub-recipients of FTA assistance are prohibited from providing charter service using federally funded equipment or facilities if there is at least one private charter operator willing and able to provide the service, except under one of the exceptions at 49 CFR 604.9. Any charter service provided under one of the exceptions must be "incidental," i.e., it must not interfere with or detract from the provision of mass transportation.

11.24.5. School Bus Requirements

49 U.S.C. 5323(F) 49 CFR Part 605

Applicability to Contracts: The School Bus requirements apply to the following type of contract: Operational Service Contracts.

Flow Down Requirements: The School Bus requirements flow down from MBTA to first tier service contractors.

School Bus Operations: Pursuant to 69 U.S.C. 5323(f) and 49 CFR Part 605, recipients and sub-recipients of FTA assistance may not engage in school bus operations exclusively for the transportation of students and school personnel in competition with private school bus operators unless qualified under specified exemptions. When operating exclusive school bus service under an allowable exemption, recipients and sub-recipients may not use federally funded equipment, vehicles, or facilities.

11.24.6. Cargo Preference Requirements

46 U.S.C. 55305

Applicability to Contracts: The Cargo Preference requirements apply to all contracts involving equipment, materials, or commodities which may be transported by ocean vessels.

Flow Down Requirements: The Cargo Preference requirements apply to all subcontracts when the subcontract may be involved with the transport of equipment, material, or commodities by ocean vessel.

Cargo Preference: Use of United States-Flag Vessels - The contractor agrees:

1. To use privately owned United States-Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to the underlying contract to the extent such vessels are available at fair and reasonable rates for United States-Flag commercial vessels;
2. To furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the FTA recipient (through the contractor in the case of a subcontractor's bill-of-lading.)
3. To include these requirements in all subcontracts issued pursuant to this contract when the subcontract may involve the transport of equipment, material, or commodities by ocean vessel.

Cargoes Procured, Furnished, or Financed by the United States Government:

1. **Definition:** In this section, the term "privately-owned commercial vessel of the United States" does not include a vessel that, after September 21, 1961, was built or rebuilt outside the United States or documented under the laws of a foreign country, until the vessel has been documented under the laws of the United States for at least three (3) years.
2. **Minimum Tonnage:** When the United States Government procures, contracts for, or otherwise obtains for its own account, or furnishes to or for the account of a foreign country, organization, or persons without provision for reimbursement, any equipment, materials, or commodities, or provides financing in any way with Federal funds for the account of any persons unless otherwise exempted, within or without the United States, or advances funds or credits, or guarantees the convertibility of foreign currencies in connection with the furnishing or obtaining of the equipment, materials, or commodities, the appropriate agencies shall take steps necessary and practicable to ensure that at least fifty percent (50%) of the gross tonnage of the equipment, materials, or commodities (computed separately for dry bulk carriers, dry cargo liners, and tankers) which may be transported on ocean vessels is transported on privately-owned commercial vessels of the United States, to the extent those vessels are available at fair and reasonable rates for commercial vessels of the United States, in a manner that will ensure a fair and reasonable participation of commercial vessels of the United States in those cargoes by geographic areas.

3. **Waivers:** The President, the Secretary of Defense, or Congress (by concurrent resolution or otherwise) may waive this section temporarily by:

- a. Declaring the existence of an emergency justifying a waiver; and
- b. Notifying the appropriate agencies of the waiver.

4. **Programs of Other Agencies:**

- a. Each department or agency that has responsibility for a program under this section shall administer that program with respect to this section under regulations and guidance issued by the Secretary of Transportation. The Secretary, after consulting with the department or agency or organization or person involved, shall have the sole responsibility for determining if a program is subject to the requirements of this section.
- b. The Secretary:
 - i. Shall conduct an annual review of the administration of programs determined pursuant to paragraph (1) as subject to the requirements of this section;
 - ii. May direct agencies to require the transportation on United States-flagged vessels of cargo shipments not otherwise subject to this section in equivalent amounts to cargo determined to have been shipped on foreign carriers in violation of this section;
 - iii. May impose on any person that violates this section, or a regulation prescribed under this section, a civil penalty of not more than \$25,000 for each violation willfully and knowingly committed, with each day of a continuing violation following the date of shipment to be a separate violation; and
 - iv. May take other measures as appropriate under the Federal Acquisition Regulations issued pursuant to section 25(c)(1) 1 of the Office of Federal Procurement Policy Act (41 U.S.C. 421(c)(1) 2 or contract with respect to each violation.

5. **Security of Government-Impelled Cargo:**

- a. In order to ensure the safety of vessels and crewmembers transporting equipment, materials, or commodities under this section, the Secretary of Transportation shall direct each department or agency (except the Department of Defense), when responsible for the carriage of such equipment, materials, or commodities, to provide armed personnel aboard vessels of the United States carrying such equipment, materials, or commodities if the vessels are transiting high-risk waters.
- b. The Secretary of Transportation shall direct each department or agency responsible to provide armed personnel under paragraph (1) to reimburse, subject to the availability

of appropriations, the owners or operators of applicable vessels for the cost of providing armed personnel.

- c. In this subsection, the term “high-risk waters” means waters so designated by the Commandant of the Coast Guard in the Port Security Advisory in effect on the date on which an applicable voyage begins.

(Pub. L. 109–304, §8(c), Oct. 6, 2006, 120 Stat. 1642; Pub. L. 110–417, div. C, title XXXV, §3511(a), (b), Oct. 14, 2008, 122 Stat. 4769; Pub. L. 112–213, title V, §503, Dec. 20, 2012, 126 Stat. 1575.)

11.24.7. Seismic Safety Requirements

42 U.S.C. 7701 et seq.

49 CFR Part 41

Applicability to Contracts: The Seismic Safety requirements apply only to contracts for the construction of new buildings or additions to existing buildings.

Flow Down Requirements: The Seismic Safety requirements flow down from MBTA to first tier contractors to assure compliance, with the applicable building standards for Seismic Safety, including the work performed by all sub-contractors.

Seismic Safety: The contractor agrees that any new building or addition to an existing building will be designed and constructed in accordance with the standards for Seismic Safety required in Department of Transportation Seismic Safety Regulations 49 CFR Part 41 and will certify to compliance to the extent required by the regulation. The contractor also agrees to ensure that all work performed under this contract including work performed by a sub-contractor is in compliance with the standards required by the Seismic Safety Regulations and the certification of compliance issued on the project. The contractor will facilitate and follow Executive Order No. 12699, “Seismic Safety of Federal and Federally-Assisted or Regulated New Building Construction,” 42 U.S.C. 7704 note, except as the Federal Government determines otherwise in writing.

11.24.8. Special DOL Equal Employment Clause

41 CFR Part 60

See Section 11.24.25 – Civil Rights Requirements.

11.24.9. Energy Conservation Requirements

42 U.S.C. 6321 et seq. 49 CFR Part 622

Applicability to Contracts: The Energy Conservation requirements are applicable to all contracts.

Flow Down Requirements: The Energy Conservation requirements extend to all third party contractors and their contracts at every tier and, sub-recipients and their sub-agreements at every tier.

Energy Conservation: The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the State energy conservation plan issued in compliance with the Energy Policy and Conservation Act. The contractor agrees to perform an energy assessment for any

building constructed, reconstructed, or modified with FTA funds required under FTA regulations, “Requirements for Energy Assessments,” 49 CFR part 622, subpart C.

11.24.10. Clean Water Requirements

33 U.S.C. 1251 - 1377

Applicability to Contracts: The Clean Water requirements apply to each contract and subcontract which exceeds \$100,000.

Flow Down Requirements: The Clean Water Act requirements flow down to MBTA third party contractors and their contracts at every tier, and sub-recipients and their sub-agreements at every tier.

Clean Water:

1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Water Act, as amended, 33 U.S.C. 1251 – 1377 et seq.
2. The contractor agrees to report each violation to MBTA and understands and agrees that MBTA will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office in compliance with the notice of violating facility provisions in section 508 of the Clean Water Act, as amended, 33 U.S.C. 1368
3. The contractor agrees to protect underground sources of drinking water in compliance with the Safe Drinking Water Act of 1974, as amended, 42 U.S.C. 300f – 300j-6.

The contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

11.24.11. Bus Testing

49 U.S.C. 5318(e)

49 U.S.C. 5323(c)

49 CFR Part 665

Applicability to Contracts: The Bus Testing requirements pertain only to the acquisition of Rolling Stock/Turnkey.

Flow Down Requirements: The Bus Testing requirements should not flow down, except to the turnkey contractor as stated in the most current FTA Master Agreement.

Bus Testing: The Contractor [Manufacturer] agrees to comply with 49 U.S.C. 5323(c) and FTA’s implementing regulation at 49 CFR Part 665 and shall perform the following:

- i. A manufacturer of a new bus model or a bus produced with a major change in components or configuration shall provide a copy of the final test report to the recipient at a point in the procurement process specified by the recipient which will be prior to the recipient's final acceptance of the first vehicle.
- ii. A manufacturer who releases a report under paragraph 1 above shall provide notice to the operator of the testing facility that the report is available to the public.

- iii. If the manufacturer represents that the vehicle was previously tested, the vehicle being sold should have the identical configuration and major components as the vehicle in the test report, which must be provided to the recipient prior to recipient's final acceptance of the first vehicle. If the configuration or components are not identical, the manufacturer shall provide a description of the change and the manufacturer's basis for concluding that it is not a major change requiring additional testing.
- iv. If the manufacturer represents that the vehicle is "grandfathered" (has been used in mass transit service in the United States before October 1, 1988, and is currently being produced without a major change in configuration or components), the manufacturer shall provide the name and address of the recipient of such a vehicle and the details of that vehicle's configuration and major components.

11.24.12. Pre-Award and Post-Delivery Audits Requirements

49 U.S.C. 5323

49 C.F.R. 661.12 49 CFR Part 663

Applicability to Contracts: These requirements apply only to the acquisition of Rolling Stock/Turnkey.

Flow Down Requirements: These requirements should not flow down, except to the turnkey contractor as stated in Master Agreement.

Buy America certification is mandated under FTA regulation, "Pre-Award and Post-Delivery Audits of Rolling Stock Purchases," 49 C.F.R. 663.13.

A Buy America certification under this part shall be issued in addition to any certification which may be required by part 661 of this title. Nothing in this part precludes FTA from conducting a Buy America investigation under part 661 of this title "Pre-Award and Post-Delivery Audit Requirements." The Contractor agrees to comply with "Buy America Requirements--Surface Transportation Assistance Act of 1982, as amended," 49 C.F.R. 661.12, but has been modified to include FTA's Buy America requirements codified at 49 U.S.C. A 5323(j).

In accordance with the above, the Federal Transportation Administration; as delegated by the Secretary of Transportation, has issued regulations requiring pre-award and post-delivery audits when federal financial assistance is utilized in the purchase of rolling stock when funds have been made available under the Urban Mass Transportation Act as amended.

A. General

1. Definitions as used in this herein:

- a. Pre-award means that period in the procurement process before the recipient enters into a formal contract with the supplier.
- b. Post-delivery means the time period in the procurement process from when the rolling stock is delivered to the recipient until title to the rolling stock is transferred to the recipient or the rolling stock is put into passenger service, whichever is first.
- c. Rolling stock means buses, vans, cars, railcars, locomotives, trolley cars and buses, ferry boats, and vehicles used for guideways and incline planes.
- d. Audit means a review resulting in a report containing the necessary certifications of compliance with Buy America Standards, purchaser's requirements specifications, and, where appropriate, a manufacturer's certification of compliance with or inapplicability of the Federal Motor Vehicle Safety Standards, required by Section 319 of STURAA and this part.

2. Audit Limitations

- a. Applicable Buy America requirements (Section 165 of the Surface Transportation Assistance Act of 1982, as amended); and
- b. Solicitation specification requirements of the recipient.
- c. An audit under this part includes, where appropriate, a copy of a manufacturer's self-certification information that the vehicle complies with Federal Motor Vehicle Safety Standard or a certification that such standards are inapplicable.
- d. An audit conducted under this part is separate from the single annual audit requirement established by Office of Management and Budget Circular A-128, "Audits of State and Local Governments," dated May 16, 1985.

B. Pre-Award Audit

- 1. Pre-Award audit must be completed before a formal contract for the procurement of rolling stock may be issued.
- 2. The elements of this pre-award audit include the following certification to be maintained on file by the purchaser.
 - a. Buy America Certification
 - (i) There is a letter from the FTA which grants a waiver to the rolling stock to be purchased from the Buy America requirements under Section 165(b)(1), (b)(2), or (b)(4) of the Surface Transportation Assistance Act of 1982 as amended; or
 - (ii) The recipient is satisfied that the rolling stock to be purchased meets the requirements of Section 165(a) of (b)(3) of the Surface Transportation Assistance Act of 1982, as amended, after having reviewed itself or through an audit prepared by someone other than the manufacturer or its agent documentation provided by the manufacturer which lists:
 - (a) Component and subcomponent parts of the rolling stock to be purchased identified by manufacturer of the parts, their country of origin and costs; and
 - (b) The location of the final assembly point for the rolling stock, including a description of the activities that will take place at the final assembly point and the cost of final assembly.
 - b. Purchaser's Requirements Certification
 - (i) The rolling stock the recipient is contracting for the same product described in the purchaser's solicitation specification; and
 - (ii) The Bidder is a responsible manufacturer with the capability to produce a vehicle that meets the recipient's specification set forth in the recipient's solicitation.
 - c. Federal Motor Vehicle Safety Standards (FMVSS):
 - (i) **Certification of Compliance with Federal Motor Vehicle Safety**

Standards.

If a vehicle purchased under this part is subject to the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in part 571 of this title, the purchaser shall keep on file its certification that it received, both at the pre-award and post-delivery stage, a copy of the manufacturer's self-certification information that the vehicle complies with relevant Federal Motor Vehicle Safety Standards.

(ii) Certification that Federal Motor Vehicle Standards do not apply.

(a) Except for rolling stock subject to paragraph (b) of this section, if a vehicle purchased under this part is not subject to the Federal Motor Vehicle Safety Standards issued by the National Highway Traffic Safety Administration in part 571 of this title, the recipient shall keep on file its certification that it received a statement to that effect from the manufacturer.

(b) This subpart shall not apply to rolling stock that is not a motor vehicle.

C. Post-Delivery Audits

1. A post-delivery audit of FTA funded rolling stock procurement must be complete before title is transferred to the purchaser.
2. A post-delivery audit under this section includes:
 - a. Post-delivery Buy America Certificate which the purchaser keeps on file, the following:
 - (i)** There is a letter from UMTA (FTA) which grants a waiver to the rolling stock received from the Buy America requirements under Section 165(b)(1), or (b)(4) of the Surface Transportation Assistance Act of 1982, as amended; or
 - (ii)** The recipient is satisfied that the rolling stock received meets the requirements of Section 165(a) or (b)(3) of the Surface Transportation Assistance Act of 1982, as amended, after having reviewed itself or by means of an audit prepared by someone other than the manufacturer or its agent documentation provided by the manufacturer which lists:
 - (a)** Components and subcomponent parts of the rolling stock identified by manufacturer of the parts, their country of origin and costs; and
 - (b)** The actual location of the final assembly point for rolling stock including a description of the activities which took place at the final assembly point and the cost of the final assembly.
 - b. Post-Delivery Purchaser's Requirements Certification

For purpose of this part, a post-delivery purchaser's requirements certification is a certification that the recipient keeps on file that:

- (i) Except for procurement covered under paragraph (c) in this Section, a resident inspector (other than an agent or employee of the manufacturer) was at the manufacturing site throughout the period of manufacture or the rolling stock to be purchased and monitored and completed a report on the manufacture of such rolling stock. Such a report, at a minimum, shall:
 - (a) Provide accurate records of all vehicle overhaul activities; and
 - (b) Address how the overhaul and operation of the vehicles fulfills the contract specifications.
 - (ii) After reviewing the report required under paragraph (a) of this Section, and visually inspecting and road testing the delivered vehicles, the vehicles meet contract specifications.
 - c. Post-Delivery Federal Motor Vehicle Safety Standards (if applicable)
- 3. If the purchaser cannot complete a post-delivery audit because it or its agent cannot certify Buy America compliance or that the rolling stock meets the purchaser's requirements specified in the contract, the rolling stock may be rejected and final acceptance by the recipient will not be required. The recipient may exercise any legal rights it has under the contract or at law.

Be advised that this provision does not preclude the recipient and manufacturer from agreeing to a conditional acceptance of rolling stock pending manufacturer's correction of deviations within a reasonable period of time.

NOTE: For this Section only, the following words have been used interchangeable to mean the same:

Recipient, Purchaser = Authority

Manufacturer, Bidder, Car builder = Contractor

11.24.13. Lobbying

31 U.S.C. 1352

49 CFR Part 19

49 CFR Part 20

Applicability to Contracts: The Lobbying requirements apply to Construction/Architectural and Engineering/Acquisition of Rolling Stock/Professional Service Contract/Operational Service Contract/Turnkey contracts.

Flow Down Requirements: The Lobbying requirements mandate the maximum flow down pursuant to Byrd Anti-Lobbying Amendment 31 U.S.C. §1352(b)(5) and 49 C.F.R. Part 19, Appendix A, Section 7.

Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, et seq.] - Contractors who apply or bid for an award of \$100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of a Federal agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31

U.S.C. 1352. Each tier certifies to the tier above that it will not and has not taken any action involving the Project or the Underlying Agreement for the Project, including any award, extension, or modification. Each tier shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures are forwarded from tier to tier up to MBTA.

11.24.14. Access to Records and Reports

49 U.S.C. 5325

18 CFR 18.36(i)

49 CFR 633.17

Applicability to Contracts: Reference Chart "Requirements for Access to Records and Reports by Type of Contracts," Item 6 of this Section.

Flow Down Requirements: FTA does not require the inclusion of these requirements in subcontracts.

Access to Records: The following access to records requirements apply to this Contract:

1. The Contractor agrees to provide MBTA, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.
2. Where MBTA or a sub-grantee of MBTA in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302(a) 1) through other than competitive bidding, the Contractor shall make available records related to the contract to MBTA, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.
3. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
4. The Contractor agrees to maintain all books, records, accounts and reports required under this contract for a period of not less than three (3) years after the date of termination or expiration of this contract, except in the event of litigation or settlement of claims arising from the performance of this contract, in which case Contractor agrees to maintain same until MBTA, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto. Reference 49 CFR 18.39(i) (11).
5. FTA does not require the inclusion of these requirements in subcontracts.
6. **Requirements for Access to Records and Reports by Types of Contract**

Contract Characteristics	Operational Service Contract	Turnkey	Construction	Architectural Engineering	Acquisition Rolling Stock	Professional Services
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Non-State Grantees						
a) Contracts below SAT (\$100,000)	Yes ¹	Those imposed on non-state	Yes	Yes	Yes	Yes
b) Contracts above \$100,000 / Capital Projects	Yes ¹	Grantee pass thru to Contractor	Yes	Yes	Yes	Yes

Sources of Authority: 1 18 CFR 18.36 (i)

11.24.15. Federal Changes

49 CFR Part 18

Applicability to Contracts: The Federal Changes requirement applies to all contracts.

Flow Down Requirements: The Federal Changes requirement flows down appropriately to each applicable changed requirement.

Federal Changes: Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Master Agreement between MBTA and FTA, as they may be amended or promulgated from time to time during the term of this contract. Contractor's failure to so comply shall constitute a material breach of this contract.

11.24.16. Clean Air

42 U.S.C. 7401 – 7601(q)

40 CFR 15.61

49 CFR Part 18

Applicability to Contracts: The Clean Air requirements apply to all contracts exceeding \$100,000, including indefinite quantities where the amount is expected to exceed \$100,000 in any year.

Flow Down Requirements: The Clean Air requirements flow down to all subcontracts which exceed \$100,000.

Clean Air:

1. The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 – 7601(q) et seq . The Contractor agrees to

report each violation to MBTA and understands and agrees that MBTA, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

2. The Contractor also agrees to include these requirements in each subcontract exceeding \$100,000 financed in whole or in part with Federal assistance provided by FTA.

11.24.17. Recycled Products

42 U.S.C. 6962

40 CFR Part 247

Executive Order 12873

Applicability to Contracts: The Recycled Products requirements apply to all contracts for items designated by the EPA, when the Contractor procures \$10,000 or more of one (1) of these items during the fiscal year, or has procured \$10,000 or more of such items in the previous fiscal year, using Federal funds.

Flow Down Requirements: These requirements flow down to all contractor and sub-contractor tiers.

Recovered Materials: The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247. The contractor agrees to comply with the U.S. Environmental Protection Agency (US EPA), “Comprehensive Procurement Guideline for Products Containing Recovered Materials,” 40 CFR part 247.

11.24.18. Davis-Bacon and Copeland Anti-Kickbacks Acts

49 U.S.C. 5333

40 U.S.C. 3141 – 3144

40 U.S.C. 3146 – 3147

18 U.S.C. 874

40 U.S.C. 3145

Applicability to Contracts: The Davis-Bacon and Copeland Acts are codified at 40 USC 3141, et seq. and 18 USC 874. The Acts apply to grantee construction contracts and subcontracts that “at least partly are financed by a loan or grant from the Federal Government.” 40 USC 3145(a), 29 CFR 5.2(h), 49 CFR 18.36(i) (5). The Acts apply to any construction contract over \$2,000. 40 USC 3142(a), 29 CFR 5.5(a). ‘Construction,’ for purposes of the Acts, includes “actual construction, alteration and/or repair, including painting and decorating.” 29 CFR 5.5(a). The requirements of both Acts are incorporated into a single clause (see 29 CFR 3.11) enumerated at 29 CFR 5.5(a) and reproduced below.

Flow Down Requirements: Applies to third party contractors and sub-contractors

1. Minimum Wages:

- (i) All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any

contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (1)(iv) of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than Monthly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one (1) classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (1)(ii) of this section) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its sub-contractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii)

- (A) The Contracting Officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:
 - (1) Except with respect to helpers as defined in 29 CFR 5.2(n) (4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2) The classification is utilized in the area by the construction industry; and
 - (3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and
 - (4) With respect to helpers as defined in 29 CFR 5.2(n) (4), such a classification prevails in the area in which the work is performed.
- (B) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within thirty (30) days of receipt and shall advise the Contracting Officer or will notify the Contracting Officer within the thirty (30) day period that additional time is necessary.
- (C) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within thirty (30) days of receipt and shall advise the Contracting Officer or will notify the Contracting Officer within the thirty (30) day period that additional time is necessary.

- (D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs ((1)(ii) (A), (B) or (C) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.
- (iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.
- (iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.
2. **Withholding:** MBTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any sub-contractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, MBTA may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.
3. **Payrolls and basic records.**
- (i) Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b) (2) (B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.
- (ii)

- (A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to MBTA for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all sub-contractors.
- (B) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or sub-contractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:
 - (1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a) (3) (i) of Regulations, 29 CFR part 5 and that such information is correct and complete;
 - (2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR part 3;
 - (3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.
- (C) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (a)(3)(ii)(B) of this section.
- (D) The falsification of any of the above certifications may subject the contractor or sub-contractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.
- (iii) The contractor or sub-contractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or sub-contractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and trainees -

- (i) **Apprentices.** Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first ninety (90) days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall

not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or Sub-contractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

- (ii) **Trainees.** Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.
- (iii) **Equal Employment Opportunity** - The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR part 30.

5. **Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.
6. **Subcontracts.** The contractor or sub-contractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the sub-contractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any sub-contractor or lower tier sub-contractor with all the contract clauses in 29 CFR 5.5.
7. **Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a sub-contractor as provided in 29 CFR 5.12.
8. **Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.
9. **Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its sub-contractors) and the contracting Authority, the U.S. Department of Labor, or the employees or their representatives.
10. **Certification of eligibility.**
 - (i) By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or Contractor who has an interest in the contractor's Contractor is a person or Contractor ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (ii) No part of this contract shall be subcontracted to any person or Contractor ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).
 - (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) Contract Work Hours and Safety Standards Act. The Authority Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by §5.5(a) or §4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

1. **Overtime requirements.** No contractor or sub-contractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1.5) times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.
2. **Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any sub-contractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and sub-contractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with

respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.

3. **Withholding for unpaid wages and liquidated damages.** The Massachusetts Bay Transportation Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or sub-contractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
4. **Subcontracts.** The contractor or sub-contractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the sub-contractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any sub-contractor or lower tier sub-contractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

(c) In addition to the clauses contained in paragraph (b), in any contract subject only to the Contract Work Hours and Safety Standards Act and not to any of the other statutes cited in §5.1, the Authority Head shall cause or require the contracting officer to insert a clause requiring that the contractor or sub-contractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the Authority Head shall cause or require the contracting officer to insert in any such contract a clause providing that the records to be maintained under this paragraph shall be made available by the contractor or sub-contractor for inspection, copying, or transcription by authorized representatives of the Massachusetts Bay Transportation Authority and the Department of Labor, and the contractor or sub-contractor will permit such representatives to interview employees during working hours on the job.

The information collection, recordkeeping, and reporting requirements contained in the following paragraphs of this section were approved by the Office of Management and Budget:

OMB Control Number

(a)(1)(ii)(B) 1215-0140

(a)(1)(ii)(C) 1215-0140

(a)(1)(iv) 1215-0140

(a)(3)(i) 1215-0140, 1215-0017

(a)(3)(ii)(A) 1215-0149

(c) 1215-0140,

1215-0017

[48 FR 19540, Apr. 29, 1983, as amended at 51 FR 12265, Apr. 9, 1986; 55 FR 50150, Dec. 4, 1990; 57 FR 28776, June 26, 1992; 58 FR 58955, Nov. 5, 1993; 61 FR 40716, Aug. 5, 1996; 65 FR 69693, Nov. 20, 2000; 73 FR 77511, Dec. 19, 2008]

Effective Date Note: At 58 FR 58955, Nov. 5, 1993, §5.5 was amended by suspending paragraph (a)(1)(ii) indefinitely.

11.24.19. Contract Work Hours and Safety Standards Act

29 CFR Part 5

40 U.S.C. 3701 et seq.

40 U.S.C. 3702

Applicability to Contracts: The Contract Work Hours and Safety Standards Act is codified at 40 USC 3701, et seq. The Act applies to grantee contracts and subcontracts “financed at least in part by loans or grants from ... the [Federal] Government.” 40 USC 3701(b) (1) (B) (iii) and (b) (2), 29 CFR 5.2(h), 49 CFR 18.36(i) (6).

The Act applies to construction contracts and, in very limited circumstances, non-construction projects that employ “laborers or mechanics on a public work” with a value greater than \$100,000.

Flow Down Requirements: Applies to third party contractors and sub-contractors.

- a. **Overtime Requirements:** No contractor or sub-contractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half (1.5) times the basic rate of pay for all hours worked in excess of forty (40) hours in such workweek.
- b. **Violation; Liability for Unpaid Wages; Liquidated Damages:** In the event of any violation of the clause set forth in paragraph (1) of this section the contractor and any sub-contractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and sub-contractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this section.
- c. **Withholding for Unpaid Wages and Liquidated Damages:** MBTA shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or sub-contractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or sub-contractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this section.

Subcontracts: The Contractor or sub-contractor shall insert in any subcontracts the clauses set forth in paragraphs (1) through (4) of this section and also a clause requiring the sub-contractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any sub-contractor or lower tier sub-contractor with the clauses set forth in paragraphs (1) through (4) of this section.

11.24.20. No Government Obligation to Third Parties

Applicability to Contracts: Applicable to all contracts.

Flow Down Requirements: This concept should flow down to all levels to clarify, to all parties to the contract, that the Federal Government does not have contractual liability to third parties, absent specific written consent.

No Obligation by the Federal Government.

1. MBTA and the Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this contract and shall not be subject to any obligations or liabilities to MBTA, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.
2. The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the sub-contractor who will be subject to its provisions.

11.24.21. Program Fraud and False or Fraudulent Statements and Related Acts

31 U.S.C. 3801 et seq.

49 CFR Part 31

18 U.S.C. 1001

49 U.S.C. 5307

Applicability to Contracts: These requirements are applicable to all contracts.

Flow Down Requirements: These requirements flow down to contractors and sub-contractors who make, present, or submit covered claims and statements.

1. The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. §§ 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.
2. The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to

impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

3. The Contractor agrees to include the above two (2) clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clauses shall not be modified, except to identify the sub-contractor who will be subject to the provisions.

11.24.22. Termination & Cancellation

49 CFR Part 18

FTA Circular 4220.1F

For termination, see Section 11.9.

11.24.23. Government-Wide Debarment and Suspension (Non-Procurement)

49 CFR 18

2 CFR 1200

2 CFR 180

Executive Orders 12549 and 12689

31 U.S.C. 6101

Background and Applicability: In addition to the contracts covered under 2 CFR 180.220(b) of the OMB guidance, this part applies to any contract, regardless of tier, that is awarded by a contractor, sub-contractor, supplier, Contractor, or its agent or representative in any transaction, if the contract is to be funded or provided by the Department of Transportation under a covered non-procurement transaction and the amount of the contract is expected to equal or exceed \$25,000. This extends the coverage of the Department of Transportation non-procurement suspension and debarment requirements to all lower tiers of subcontracts under covered non-procurement transactions, as permitted under the OMB guidance at 2 CFR 180.220(c) (see optional lower-tier coverage in the figure in the appendix to 2 CFR part 180). This government-wide regulation implements Executive Order 12549, Debarment and Suspension, Executive Order 12689, Debarment and Suspension, and 31 U.S.C. 6101 note (Section 2455, Public Law 103-355, 108 Stat. 3327).

These provisions apply to all MBTA contracts and subcontracts at any level expected to equal or exceed \$25,000 as well as any contract or subcontract (at any level) for federally required auditing services. These are contracts and subcontracts referred to in the regulation as “covered transactions.”

Grantees, contractors, and sub-contractors (at any level) that enter into covered transactions are required to verify that the entity (as well as its principals and affiliates) they propose to contract or subcontract with is not excluded or disqualified. They do this by (a) Checking the System for Award Management (SAM), (b) Collecting a certification from that person, or (c) Adding a clause or condition to the contract or subcontract.

Grantees, contractors, and sub-contractors who enter into covered transactions also must require the entities they contract with to comply 2 CFR 180 and include this requirement in their own subsequent covered transactions (i.e., the requirement flows down to subcontracts at all levels).

Flow Down Requirements: These requirements flow down to contractors and sub-contractors at all levels.

Suspension and Debarment: This contract is a covered transaction for purposes of 49 CFR Part 18. As such, the contractor is required to verify that none of the contractor, its principals, are excluded or disqualified as defined under Executive Orders Nos. 12549 and 12689.

The contractor is required to comply with 2 CFR 1200, and must include the requirement to comply with 2 CFR 1200, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its Proposal, the Bidder certifies as follows:

The certification in this clause is a material representation of fact relied upon by MBTA. If it is later determined that the Firm knowingly rendered an erroneous certification, in addition to remedies available to MBTA, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Firm agrees to comply with the requirements 2 CFR 180 while this offer is valid and throughout the period of any contract that may arise from this offer. The Firm further agrees to include a provision requiring such compliance in its lower tier covered transactions.

The Contractor shall meet the requirements of 49 C.F.R. Part 29. 49 C.F.R. Part 29 implements Executive Order 12549, Debarment and Suspension, Executive Order 12689, Debarment and Suspension, and 31 U.S.C. 6101 note (Section 2455, Public Law 103-355, 108 Stat. 3327). The provisions of Part 29 apply to all contracts and subcontracts at any level expected to equal or exceed \$24,000. This represents a change from prior practice in that the dollar threshold for application of these rules has been lowered from \$100,000 to \$24,000. As such, the Contractor is required to verify that none of the Contractor (i.e., entity), its principals, as defined at 49 C.F.R. 29.995, or affiliates, as defined at 49 CFR 29.905, or subcontractors with which it proposes to contract or subcontract, are excluded or disqualified as defined at 49 C.F.R. 29.940 and 29.945. Contractors can do this by (a) checking the Excluded Parties List System in the System for Award Management System (SAM) , (b) collecting a certification, or (c) adding a clause or condition to the relevant contract or subcontract.

11.24.24. Privacy Act

5 U.S.C. 552

Applicability to Contracts: When MBTA maintains files on drug and alcohol enforcement activities for FTA, and those files are organized so that information could be retrieved by personal identifier, the Privacy Act requirements apply to all contracts.

Flow Down Requirements: The Federal Privacy Act requirements flow down to each third party contractor and their contracts at every tier.

Contracts Involving Federal Privacy Act Requirements: The following requirements apply to the Contractor and its employees that administer any system of records on behalf of the Federal Government under any contract:

The Contractor agrees to comply with, and assures the compliance of its employees with, the information restrictions and other applicable requirements of the Privacy Act of 1974, 5 U.S.C. § 552a. Among other things, the Contractor agrees to obtain the express consent of the Federal

Government before the Contractor or its employees operate a system of records on behalf of the Federal Government. The Contractor understands that the requirements of the Privacy Act, including the civil and criminal penalties for violation of that Act, apply to those individuals involved, and that failure to comply with the terms of the Privacy Act may result in termination of the underlying contract.

11.24.25. Civil Rights Requirements

29 U.S.C. § 623, 42 U.S.C. § 2000 42 U.S.C. § 6102, 42 U.S.C. § 12112 42 U.S.C. § 12132, 49 U.S.C. § 5332 29 CFR Part 1630, 41 CFR Parts 60 et seq.

The MBTA is an Equal Opportunity Employer. As such, the MBTA agrees to comply with all applicable civil rights statutes and implementing regulations issued by the FTA. Apart from inconsistent requirements imposed by Federal statutes or regulations, the MBTA agrees to comply with the requirements of 49 U.S.C. § 5323(h)(2) by not using any Federal assistance awarded by FTA to support procurements using exclusionary or discriminatory specifications.

1. The Contractor will be required to comply with these applicable civil rights, nondiscrimination, and equal employment opportunity laws and regulations:
 - a. 49 CFR Part 21, 49 CFR Part 25, 49 CFR Part 26, 49 CFR Part 27, 49 CFR Part 37, 49 CFR Part 38, 49 CFR Part 39, 20 U.S.C. §§ 1681 – 1683 and 1685 – 1687, 21 U.S.C. § 1101, 29 U.S.C. § 794, et seq., 42 U.S.C. § 290dd – 290dd-2, 42 U.S.C. § 2000d, 42 U.S.C. § 3601, 42 U.S.C. § 4541, 42 U.S.C. § 6101 – 6107, 42 U.S.C. § 12101, et seq., 42 U.S.C. § 12132, 49 U.S.C. § 5307 (c)(1)(D)(ii), 49 U.S.C. § 5332,
 - b. 29 CFR Part 1630, 41 CFR Part 60, 29 U.S.C. § 623, 42 U.S.C. § 2000e, 42 U.S.C. § 12112,
 - c. 49 U.S.C. § 5325 (k).
 - d. Fixing America’s Surface Transportation (FAST) Act, Public Law No: 114-94, as may be amended.
2. The Civil Rights requirements flow down to all third party sub-contractors and their subcontracts at every tier.
3. The following requirements apply to a contract awarded as a result of this solicitation:
 - a. **Nondiscrimination** - In accordance with U.S. Department of Transportation (DOT), Federal, the Rehabilitation Act of 1973, as amended, 20 U.S.C. §§ 1681 – 1683 and 1685 – 1687, 21 U.S.C. § 1101, 29 U.S.C. § 794, Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 290dd – 290dd-2, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 3601, 42 U.S.C. § 4541, 42 U.S.C. § 6102, 42 U.S.C. § 6101 – 6107, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12101, 42 U.S.C. § 12132, Federal transit law 49 U.S.C. § 5307 (c)(1)(D)(ii), Federal transit law 49 U.S.C. § 5332, FTA Circular 4702.1, “Title VI Requirements and Guidelines for Federal Transit Administration Recipients.”, DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations, Executive Order No. 13166 and DOT Policy Guidance Concerning Recipients’ Responsibilities

to Limited English Proficiency (70 FR 74087, Dec. 14, 2005), the Unruh Civil Rights Act, the Contractor agrees that it will comply with the identified Federal laws and regulations, pertaining to MBTA programs and activities, to ensure that no person will be denied the benefits of, or otherwise be subjected to, discrimination (particularly in the level and quality of transportation services and transportation-related benefits) on the bases of race, color, religion, national origin, ancestry, sex, sexual orientation, gender identity, gender expression, age, marital status, genetic information, medical condition, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations, other implementing requirements that DOT or FTA may issue, and any other applicable Federal statutes and/or regulations that may be signed into law or promulgated.

- b. **Equal Employment Opportunity** - The following equal employment opportunity requirements apply to a contract awarded as a result of this solicitation:
- i. **Race, Color, Ancestry, Marital Status, Medical Condition, Genetic Information, Religion, National Origin, Sex, Sexual Orientation, Gender Identity, Gender Expression** - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, 49 U.S.C. § 5332, FTA Circular 4704.1, "Equal Employment Program Guidelines for Grant Recipients", and , the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, including "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 C.F.R. Parts 60, et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), Fair Employment and Housing Act, and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect activities undertaken in the course of the Project. Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, ancestry, religion, marital status, medical condition, genetic information, national origin, sex, sexual orientation, gender identity, gender expression, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue, and any other applicable Federal statutes that may be signed into law or Federal regulations that may be promulgated.
 - ii. **Sex** – The Contractor agrees to comply with all applicable requirements of Title IX of the Education Amendments of 1975, as amended, 20 U.S.C. § 1681, and 49 CFR part 25. In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue.
 - iii. **Age** - The Contractor agrees to comply with all applicable requirements of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6101, 45 CFR part 90, the Age Discrimination in Employment Act, 29 U.S.C. §§ 621-634, and Equal Employment

Opportunity Commission (EEOC) implementing regulations 29 CFR part 1625. In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue.

- iv. **Disabilities** - The Contractor agrees to comply with Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794, Section 508 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. § 794(d), 36 CFR part 1194, the Americans with Disabilities Act of 1990, as amended, 42 U.S.C. § 12101, 49 CFR parts 27, 37, 38, and 39, and FTA Circular 4710.1, "Americans with Disabilities Act: Guidance". In addition, the Contractor agrees to comply with any implementing requirements that DOT or FTA may issue.
4. The Contractor agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

11.24.26. ADA Access Requirements

49 U.S.C. § 5301, 29 U.S.C. § 794, 42 U.S.C. § 12101

Applicability to Contracts: The Contractor shall comply with 49 USC 5301(d), stating Federal policy that the elderly and persons with disabilities have the same rights as other persons to use mass transportation services and facilities and that special efforts shall be made in planning and designing those services and facilities to implement that policy. Contractor shall also comply with all applicable requirements of Sec. 504 of the Rehabilitation Act (1973), as amended, 29 USC 794, which prohibits discrimination on the basis of handicaps, and the Americans with Disabilities Act of 1990 (ADA), as amended, 42 USC 12101 et seq., which requires that accessible facilities and services be made available to persons with disabilities, including any subsequent amendments thereto.

Contractor shall also comply with the following regulations, as applicable, and any amendments thereto:

1. U.S. DOT regulations, "Transportation Services for Individuals with Disabilities (ADA)," 49 C.F.R. Part 37;
2. U.S. DOT regulations, "nondiscrimination on the Basis of Handicap in Programs and Activities Receiving or Benefiting from Federal Financial Assistance," 49 C.F.R. Part 27;
3. U.S. DOT regulations, "Americans with Disabilities (ADA) Accessibility Specifications for Transportation Vehicles," 49 C.F.R. Part 38;
4. Department of Justice (DOJ) regulations, "Nondiscrimination on the Basis of Disability in State and Local Government Services," 28 C.F.R. Part 35;
5. Department of Justice (DOJ) regulations, "Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities," 28 C.F.R. Part 36;
6. General Services Administration regulations, "Accommodations for the Physically Handicapped,": 41 C.F.R. Subpart 101-19;

7. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 C.F.R. Part 1630;
8. Federal Communications Commission regulations, "Telecommunications Relay Services and Related Customer Premises Equipment for the Hearing and Speech Disabled," 47 C.F.R. Part 64, Subpart F; and
9. FTA regulations, "Transportation for Elderly and Handicapped Persons," 49 C.F.R. Part 609.

11.24.27. Breaches and Dispute Resolution

49 CFR Part 18 FTA Circular 4220.1F

Applicability to Contracts: All contracts in excess of \$100,000 shall contain provisions or conditions which will allow for administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate. This may include provisions for bonding, penalties for late or inadequate performance, retained earnings, liquidated damages or other appropriate measures.

Flow Down Requirements: The Breaches and Dispute Resolutions requirements flow down to all tiers.

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of MBTA. This decision shall be final and conclusive unless within ten (10) days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the MBTA. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of MBTA shall be binding upon the Contractor and the Contractor shall abide by the decision.

Performance During Dispute - Unless otherwise directed by MBTA, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefore shall be made in writing to such other party within a reasonable time after the first observance of such injury or damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the MBTA and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the MBTA is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by MBTA or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

11.24.28. Patent and Rights in Data

37 CFR Part 401 49

CFR Parts 18 and 19

Applicability to Contracts: Patent and rights in data requirements for federally assisted projects ONLY apply to research projects in which FTA finances the purpose of the grant is to finance the development of a product or information. These patent and data rights requirements do not apply to capital projects or operating projects, even though a small portion of the sales price may cover the cost of product development or writing the user's manual.

Flow Down Requirements: The Patent and Rights in Data requirements apply to all contractors and their contracts at every tier.

CONTRACTS INVOLVING EXPERIMENTAL, DEVELOPMENTAL, OR RESEARCH WORK

- (A) **Rights in Data** - The following requirements apply to each contract involving experimental, developmental or research work:
1. The term "subject data" used in this clause means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the contract. The term includes graphic or pictorial delineation in media such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms such as punched cards, magnetic tape, or computer memory printouts; and information retained in computer memory. Examples include, but are not limited to: computer software, engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term "subject data" does not include financial reports, cost analyses, and similar information incidental to contract administration.
 2. The following restrictions apply to all subject data first produced in the performance of the contract to which this Attachment has been added:
 - a. Except for its own internal use, MBTA or Contractor may not publish or reproduce subject data in whole or in part, or in any manner or form, nor may MBTA or Contractor authorize others to do so, without the written consent of the Federal Government, until such time as the Federal Government may have either released or approved the release of such data to the public; this restriction on publication, however, does not apply to any contract with an academic institution.
 - b. In accordance with 49 C.F.R. § 18.34 and 49 C.F.R. § 19.36, the Federal Government reserves a royalty-free, non-exclusive and irrevocable license to reproduce, publish, or otherwise use, and to authorize others to use, for "Federal Government purposes," any subject data or copyright described in subsections (2)(b)1 and (2)(b)2 of this clause below. As used in the previous sentence, "for Federal Government purposes," means use only for the direct purposes of the Federal Government. Without the copyright owner's consent, the Federal Government may not extend its Federal license to any other party.
 1. Any subject data developed under that contract, whether or not a copyright has been obtained; and
 2. Any rights of copyright purchased by MBTA or Contractor using Federal assistance in whole or in part provided by FTA.
 - c. When FTA awards Federal assistance for experimental, developmental, or research work, it is FTA's general intention to increase transportation knowledge available to the public, rather than to restrict the benefits resulting from the work to participants in that work. Therefore, unless FTA determines otherwise, MBTA and the Contractor performing experimental, developmental, or research work required by the underlying contract to which this Attachment is added agrees to permit FTA to make available to the public, either FTA's license in the copyright to any subject data developed in the course of that contract, or a copy of the subject data first produced under the contract for which a copyright has not been obtained. If the experimental, developmental, or

research work, which is the subject of the underlying contract, is not completed for any reason whatsoever, all data developed under that contract shall become subject data as defined in subsection (a) of this clause and shall be delivered as the Federal Government may direct. This subsection (c), however, does not apply to adaptations of automatic data processing equipment or programs for MBTA or Contractor's use whose costs are financed in whole or in part with Federal assistance provided by FTA for transportation capital projects.

- d. Unless prohibited by state law, upon request by the Federal Government, MBTA and the Contractor agree to indemnify, save, and hold harmless the Federal Government, its officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by MBTA or Contractor of proprietary rights, copyrights, or right of privacy, arising out of the publication, translation, reproduction, delivery, use, or disposition of any data furnished under that contract. Neither MBTA nor the Contractor shall be required to indemnify the Federal Government for any such liability arising out of the wrongful act of any employee, official, or agents of the Federal Government.
 - e. Nothing contained in this clause on rights in data shall imply a license to the Federal Government under any patent or be construed as affecting the scope of any license or other right otherwise granted to the Federal Government under any patent.
 - f. Data developed by MBTA or Contractor and financed entirely without using Federal assistance provided by the Federal Government that has been incorporated into work required by the underlying contract to which this Attachment has been added is exempt from the requirements of subsections (b), (c), and (d) of this clause, provided that MBTA or Contractor identifies that data in writing at the time of delivery of the contract work.
3. Unless FTA determines otherwise, the Contractor agrees to include these requirements in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.
 4. Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (i.e., a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual, etc.), MBTA and the Contractor agree to take the necessary actions to provide, through FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Contractors under Government Grants, Contracts and Cooperative Agreements," 37 C.F.R. Part 401.
- (B) **Patent Rights** - The following requirements apply to each contract involving experimental, developmental, or research work:
1. General - If any invention, improvement, or discovery is conceived or first actually reduced to practice in the course of or under the contract to which this Attachment has been added, and that invention, improvement, or discovery is patentable under the laws of the United States of America or any foreign country, MBTA and Contractor agree to take actions necessary to provide immediate notice and a detailed report to the party at a higher tier until FTA is ultimately notified.
 2. Unless the Federal Government later makes a contrary determination in writing, irrespective of the Contractor's status (a large business, small business, state government or state instrumentality, local government, nonprofit organization, institution of higher education, individual), MBTA and the Contractor agree to take the necessary actions to provide, through

FTA, those rights in that invention due the Federal Government as described in U.S. Department of Commerce regulations, "Rights to Inventions Made by Nonprofit Organizations and Small Business Contractors Under" Government Grants, Contracts and Cooperative Agreements,; 37 C.F.R. Part 401.

3. The Contractor also agrees to include the requirements of this clause in each subcontract for experimental, developmental, or research work financed in whole or in part with Federal assistance provided by FTA.

11.24.29. Transit Employee Protective Agreements

49 U.S.C. § 5310, § 5311, and § 5333 29 CFR Part 215

Applicability to Contracts: The Transit Employee Protective Provisions apply to each contract for transit operations performed by employees of a Contractor recognized by FTA to be a transit operator. (Because transit operations involve many activities apart from directly driving or operating transit vehicles, FTA determines which activities constitute transit "operations" for purposes of this clause.)

Flow Down Requirements: These provisions are applicable to all contracts and subcontracts at every tier.

- a. General Transit Employee Protective Requirements - To the extent that FTA determines that transit operations are involved, the Contractor agrees to carry out the transit operations work on the underlying contract in compliance with terms and conditions determined by the U.S. Secretary of Labor to be fair and equitable to protect the interests of employees employed under this contract and to meet the employee protective requirements of 49 U.S.C. A 5333(b), and U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the letter of certification from the U.S. DOL to FTA applicable to MBTA's project from which Federal assistance is provided to support work on the underlying contract. The Contractor agrees to carry out that work in compliance with the conditions stated in that U.S. DOL letter. The requirements of this subsection (1), however, do not apply to any contract financed with Federal assistance provided by FTA either for projects for elderly individuals and individuals with disabilities authorized by 49 U.S.C. § 5310(a)(2), or for projects for non-urbanized areas authorized by 49 U.S.C. § 5311. Alternate provisions for those projects are set forth in subsections (b) and (c) of this clause.
- b. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5310(a)(2) for Elderly Individuals and Individuals with Disabilities - If the contract involves transit operations financed in whole or in part with Federal assistance authorized by 49 U.S.C. § 5310(a)(2), and if the U.S. Secretary of Transportation has determined or determines in the future that the employee protective requirements of 49 U.S.C. § 5333(b) are necessary or appropriate for the state and the public body sub-recipient for which work is performed on the underlying contract, the Contractor agrees to carry out the Project in compliance with the terms and conditions determined by the U.S. Secretary of Labor to meet the requirements of 49 U.S.C. § 5333(b), U.S. DOL guidelines at 29 C.F.R. Part 215, and any amendments thereto. These terms and conditions are identified in the U.S. DOL's letter of certification to FTA, the date of which is set forth Grant Agreement or Cooperative Agreement with the state. The Contractor agrees to perform transit operations in connection with the underlying contract in compliance with the conditions stated in that U.S. DOL letter.
- c. Transit Employee Protective Requirements for Projects Authorized by 49 U.S.C. § 5311 in Non-urbanized Areas - If the contract involves transit operations financed in whole or in

part with Federal assistance authorized by 49 U.S.C. § 5311, the Contractor agrees to comply with the terms and conditions of the Special Warranty for the Non-urbanized Area Program agreed to by the U.S. Secretaries of Transportation and Labor, dated May 31, 1979, and the procedures implemented by U.S. DOL or any revision thereto.

The Contractor also agrees to include the any applicable requirements in each subcontract involving transit operations financed in whole or in part with Federal assistance provided by FTA.

11.24.30. Incorporation of Federal Transit Administration (FTA) Terms

FTA Circular 4220.1F

Applicability to Contracts: The incorporation of FTA terms applies to all contracts and subcontracts at every tier.

Flow Down Requirements: The incorporation of FTA terms has unlimited flow down.

Incorporation of Federal Transit Administration (FTA) Terms: The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in the most current FTA Circular 4220, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any MBTA requests which would cause MBTA to be in violation of the FTA terms and conditions.

11.24.31. Drug and Alcohol Testing

49 U.S.C. §5331

49 CFR Part 655

49 CFR Part 382

Applicability to Contracts: The Drug and Alcohol testing provisions apply to Operational Service Contracts.

Flow Down Requirements: Anyone who performs a safety-sensitive function for the recipient or sub-recipient is required to comply with 49 CFR 655 as amended by MAP-21, with certain exceptions for contracts involving maintenance services. Maintenance CONSULTANTS for non-urbanized area formula program grantees are not subject to the rules. Also, the rules do not apply to maintenance sub-contractors.

Drug and Alcohol Testing: The Contractor agrees to establish and implement a drug and alcohol testing program that complies with 49 CFR Part 655, produce any documentation necessary to establish its compliance with Part 655, and permit any authorized representative of the United States Department of Transportation or its operating administrations, or MBTA, to inspect the facilities and records associated with the implementation of the drug and alcohol testing program as required under 49 CFR Part 655 and review the testing process. The contractor agrees further to certify annually its compliance with Part 655 before June 30 and to submit the Management Information System (MIS) reports before January 15 to MBTA. To certify compliance the Contractor shall use the "Substance Abuse Certifications" in the "Annual List of Certifications and Assurances for Federal Transit Administration Grants and Cooperative Agreements," which is published annually in the Federal Register.

11.24.32. Transit Vehicle Manufacturer (TVM) Certifications

49 CFR Part 26

49 CFR §26.49 Contractor must submit to MBTA a certification from each transit vehicle manufacture that desires to bid or propose upon a DOT-assisted transit vehicle procurement that it has complied with the requirements of 49 CFR §26.49. MBTA may, however, with FTA approval, establish project-specific goals for DBE participation in the procurement of transit vehicles in lieu of complying through the overall goal-setting procedures.

11.24.33. Metric Requirements

15 U.S.C. §§205

2007-Pub. L. 110-69

As required by U.S. DOT or FTA, MBTA agrees to use the metric system of measurement in its Project activities, pursuant to the Metric Conversion Act, as amended by the Omnibus Trade and Competitiveness Act, 15 U.S.C. §§ 205a et seq.; Executive Order No. 12770, "Metric Usage in Federal Government Programs," 15 U.S.C. § 205a note; and other U.S. DOT or FTA regulations, guidelines, and policies. To the extent practicable and feasible, the MBTA agrees to accept products and services with dimensions expressed in the metric system of measurement.

11.24.34. National Intelligent Transportation Systems (ITS) Architecture and Standards

23 U.S.C. Section 517(d)

23 U.S.C. §502

Intelligent transportation system (ITS) property and services must comply with the National ITS Architecture and Standards to the extent required by 23 U.S.C. Section 517(d) and FTA Notice, "FTA National ITS Architecture Policy on Transit Projects," 66 FR 1455 et seq., January 8, 2001, and later published policies or implementing directives FTA may issue. Consequently, third party contracts involving ITS are likely to require provisions to ensure compliance with Federal requirements.

11.24.35. Corridor Preservation

49 U.S.C. 5323(q)

The Recipient agrees not to develop right-of way acquired under 49 U.S.C. § 5323(q), as amended by MAP-21, in anticipation of its Project until all required environmental reviews for that Project have been completed.

11.24.36. Veterans Employment

49 U.S.C. 5325 (k)

Veterans Employment. As provided by 49 U.S.C. § 5325(k):

To the extent practicable, Contractor agrees that it:

1. Will give a hiring preference to veterans (as defined in 5 U.S.C. § 2108), who have the skills and abilities required to perform construction work required under a third party contract in connection with a capital project supported with funds made available or appropriated for 49 U.S.C. chapter 53, and
2. Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee, and

Contractor also assures that its sub-contractor:

1. Will give a hiring preference to veterans (as defined in 5 U.S.C. § 2108), who have the skills and abilities required to perform construction work required under a third party contract in connection with a capital project supported with funds made available or appropriated for 49 U.S.C. chapter 53, to the extent practicable, and
2. Will not require an employer to give a preference to any veteran over any equally qualified applicant who is a member of any racial or ethnic minority, female, an individual with a disability, or a former employee.

11.24.37. Air Quality / EPA and Fuel Economy

Applicable requirements of EPA regulations, "Conformity to State or Federal Implementation Plans of Transportation Plans, Programs, and Projects Developed, Funded or Approved Under Title 23 U.S.C. or the Federal Transit Act," 40 C.F.R. Part 51, Subpart T; and "Determining Conformity of Federal Actions to State or Federal Implementation Plans," 40 C.F.R. Part 93.

The Contractor should be aware that the following EPA regulations, among others, may apply to its Project: "Control of Air Pollution from Motor Vehicles and Motor Vehicle Engines," 40 C.F.R. Part 85; "Control of Air Pollution from New and In-Use Motor Vehicles and New and In-Use Motor Vehicle Engines: Certification and Test Procedures," 40 C.F.R. Part 86; and "Fuel Economy of Motor Vehicles," 40 C.F.R. Part 6.00.

11.24.38. Federal Tax Liability and Recent Felony Convictions

Consolidated Appropriations Act 2019, Pub. L. 116-6, div. D, Title VII, Sections 744-745

Applicability to Contracts:

The requirements apply to any Third-Party Agreement with any private corporation, partnership, trust, joint-stock company, sole proprietorship, or other business association ("Third-Party Participant").

The Third-Party Participant must provide a certification that the Third-Party Participant:

1. Does not have any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability; and
2. Was not convicted of the felony criminal violation under any Federal law within the preceding 24 months.

MBTA shall not enter into any agreement with a Third-Party Participant unable to provide such certification without written FTA approval.

Flow Down Requirements: The requirements flow down from MBTA to first tier contractors, who are responsible for ensuring that all lower tier contractors and sub-contractors are in compliance, without regard to the value of any subagreement.

11.24.39. Compliance with the National Defense Authorization Act

Public Law 115-232

Applicability to Contracts:

On all contracts, the “Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment” Regulation (2 CFR 200.216) prohibits the Contractor from using or furnishing the following telecommunications equipment or services:

1. Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
2. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
3. Telecommunications or video surveillance services provided by such entities or using such equipment.
4. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

This prohibition applies to all products manufactured by the aforementioned companies, including any individual components or parts.

By submitting a bid, the Contractor certifies that all services, equipment and work will be in compliance with the terms of 2 CFR 200.216.

11.25. Federal Requirements – Disadvantaged Business Enterprises

11.25.1. Policy Statement

The Massachusetts Bay Transportation Authority, hereinafter referred to as “the Authority” or “the MBTA,” has established a Disadvantaged Business Enterprise (DBE) Program in accordance with regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. The Authority has received Federal financial assistance from the USDOT, and as a condition of receiving this assistance, the Authority has signed an assurance that it will comply with 49 CFR Part 26.

It is the policy of the Authority to ensure that DBEs, as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in contracts funded wholly or in part by USDOT funds. Further, in keeping with the spirit of growth and development, raising the bar to fulfill business needs and ensuring quality, the Authority will also provide networking opportunities, technical support, guidance and training to DBEs and contractors to support quality business partnerships.

It is the policy of the Authority to do the following:

1. Ensure non-discrimination in the award and administration of USDOT-assisted contracts.
2. Create a level playing field on which DBEs can compete fairly for USDOT-assisted contracts.
3. Ensure that the DBE Program is narrowly tailored in accordance with applicable law.
4. Ensure that only firms that fully meet 49 CFR Part 26 eligibility standards are permitted to participate in the DBE Program.
5. Help remove barriers to the participation of DBEs in USDOT-assisted contracts.
6. Assist the development of firms that can compete successfully in the market place outside the DBE Program.

In administering the DBE Program, the Authority will not do the following:

1. Exclude any person from participation in the award and performance of any contract on the basis of age, race, color, religion, sexual orientation, disability or national origin.
2. Directly or through contractual or other arrangements, use criteria or methods of administration that have the effect of defeating or substantially impairing accomplishment of the objectives of 49 CFR Part 26.
3. Use race- or gender-conscious participation set-asides on any USDOT-assisted contracts; but, race- or gender- neutral set-asides can be used as part of the MBTA Fostering Small Business Program.

Implementation of the DBE Program is accorded the same priority as compliance with all other legal obligations incurred by the Authority in its financial assistance agreements with USDOT. The Assistant Secretary of the Office of Diversity and Civil Rights has been designated as the DBE Liaison Officer (DBELO), and has unimpeded and direct access to the General Manager. In that capacity, the Assistant Secretary is responsible for implementing all aspects of the DBE Program. The DBELO shall act in an administrative capacity in implementing the DBE Program throughout the Authority.

11.25.2. Definitions

Terms and definitions applicable to the USDOT DBE Program and these Provisions may be found at 49 CFR § 26.5 and related appendices and guidance pages.

11.25.3. Contractor Assurances

The contractor, subrecipient or any subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of USDOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of the contractor or such other remedy as the Authority deems appropriate, which may include, but is not limited to:

1. Withholding monthly progress payments;

2. Assessing sanctions;
3. Liquidated damages; and / or
4. Disqualifying the contractor from future Bidding as non-responsible.

11.25.4. Required Subcontract Provisions

The contractor shall include the provisions of Section 11.25.3 - Contractor Assurances above in every subcontract, making those provisions binding on each subcontractor. The contract also shall include a copy of these Provisions, in their entirety, in every subcontract with a DBE firm which is, or may be, submitted for credit toward the contract's DBE participation goal. All subcontracts or agreements with DBEs to supply labor or materials, including but not limited to lower tier subcontracts, must be performed in accordance with these Provisions and 49 CFR Part 26.

11.26. Terms & Conditions Signature

IN WITNESS WHEREOF, the Contractor certifies under the pains and penalties of perjury that it shall comply with these MBTA Terms and Conditions under Section 11 for any applicable Contract executed with the MBTA as certified by their authorized signatory below:

Contractor Authorized Signatory:

Print Name:

Title:

Date:

Full legal Organization or Individual Name:			
Doing Business As Name (If Different):			
Tax Identification Number:			
Address:			
Phone:		Fax:	

12. TECHNICAL RESPONSE

12.1. Technical Response Submission

Section 1.9 details the process and specific requirements for bidder responses. Responses are due both to the MBTA offices and electronically on COMMBUYS.

Bidders responding to this RFP must fully complete, sign, and submit all Technical Response Components listed in Section 12.2. Where noted, Bidders must provide specific numbers of original documents. Bidders shall not: (1) leave any section of a form blank; (2) mark any section of a form not applicable (N/A); (3) make reference to other documents; or (4) make any response conditional.

The MBTA reserves the right to request additional information for clarification purposes, either written or oral, from Bidders prior to award.

12.2. Technical Response Components

To be considered complete, the Bidder's Technical Response must include:

- One (1) original document(s) for items 12.2.1 – 12.2.6
- One (1) original plus nine (9) copies for items 12.2.7 – 12.2.10, each in a 3-ring binder

12.2.1. RFP Attachment 2: Technical Response Cover Letter

12.2.2. Signatures

A certified copy of resolution, by-law, or Power-of-Attorney authorizing an Officer or Agent to sign on behalf of the Bidder must accompany the Proposal and any Contract which may ensue.

1. If a Proposal is made by a foreign corporation, evidence of compliance with Massachusetts General Laws, c. 156D and 950 CMR 113.48 (foreign corporation certificate of registration) and 113.57 (annual report) must be given.
2. If a Proposal is made by two or more individuals, partnerships, or corporations, or any combination of these operating for the purpose of this Proposal as a Joint Venture, each party joining to make the Proposal must submit, attach to and make part of the Proposal, information and signatures in compliance with the foregoing provisions applicable to an individual, firm, partnership, or corporation.
 - a. In addition, if any of the Joint Venture is a corporation, an attested copy of the vote of the corporation authorizing such Joint Venture must be attached to the proposal.

12.2.3. RFP Attachment 3: Technical Response Certifications

RFP Attachment 3 contains the certifications, affidavits, and other forms that must be included with Bidder's Technical Response, including:

1. Certification of compliance with 49 CFR§ 26.49 – Transit Vehicle Manufacturing DBE Participation Filing with the FTA.
2. Certification: Buy America
3. Certification: Pre-Award/Post-Delivery Audits of Rolling Stock
4. Non-Collusion Affidavit

5. Certification: Debarment, Suspension, and Other Responsibility Matters
6. Certification: Debarments, Suspension, and Other Responsibility Matters for Lower Tier Participant
7. Certification: Lobbying
8. Certification: Compliance with Bus Testing Requirement
9. Certification: Federal Motor Vehicle Safety Standards
10. Non-Discrimination Affidavit
11. Certification: Compliance with Drug & Alcohol Programs
12. Certification: Performance Guarantee
13. Certification: Final Assembly

12.2.4. Signed Contract Terms and Conditions (RFP Section 11)

12.2.5. Proof of Insurance

The Bidder shall include proof of insurance consistent with the requirements of Section 3.2.

12.2.6. Financial Statements

The Bidder shall provide three (3) years of audited financial statements and most recent audited quarterly financial statements, if any. If Bidder's financial statements are available online, a link to those statements is acceptable.

12.2.7. Introduction

1. An introductory letter addressed to:
Aidan Flynn
Massachusetts Bay Transportation Authority
10 Park Plaza, Suite 2810
Boston, Massachusetts 02116
2. An introduction of the prime contractor, members of a partnership, joint venture, or other teaming arrangement, whichever is applicable, and an introduction of all major subcontractors/subconsultants who may be involved in the performance of the work; and
3. A discussion of the primary business experience, length of time in business, ownership, office locations, specific location of the principal office from where the main work will be performed, contact information (i.e., contact names, telephone and facsimile numbers, and email addresses), and other information introductory in nature for each firm involved in making the proposal.

12.2.8. Technical Proposal, in the sections noted below:

The Technical Proposal has a combined page limit (for all sections noted) of **200** pages (single-sided).

1. Technical Description of the Proposed Bus Design

- a. RFP Attachment 4 – Battery Electric Bus Technical Information Data Sheet

BEB Technical Information Data Sheet (RFP Attachment 4) shall be completed in full and included with the Technical Proposal to define the details of the proposed bus design configuration.

- b. Provide detailed analysis demonstrating the Bidder's proposed bus meets Technical Specification requirements for:
 - i. Range requirements of TS Section 8.5. (Bidders may review route profile API and GTFS files at <https://www.mbt.com/developers>)
 - ii. ESS charging requirements of TS Section 8.5
 - iii. ESS size (kWh), weight, and mounting location(s) required to meet TS requirements
 - iv. Load shed strategy for a bus constructed to the requirements of this Technical Specification and Attachments
 - v. Axle and wheel loads (weights) for bus configured per the requirements of TS VE21-054 and loaded to gross load
 - vi. Altoona test results for buses constructed to the requirements of this Technical Specification and Attachments
 - vii. Shaker table test results for buses constructed to the requirements of this Technical Specification and Attachments to also include bus configuration and route profile data of tested bus
 - viii. ESS and high voltage system thermal event prevention strategy and fire detection and suppression system theory of operation and adherence to requirements of Technical Specification Section 5.10
- c. Submit the following drawings and Design Details
 - i. Plan and Elevations of proposed bus
 - ii. Illustration outlining Basic Structure, color code and Describe Materials used
 - iii. Illustration depicting all Exterior Body Panels and describe materials used.
 - iv. Drawings showing at least three (3) Proposed Seating Layouts
- d. Submit Design Documentation
 - i. Describe procedure for replacement of side body panels
 - ii. Documentation of corrosion resistance with methods and materials used
 - iii. Describe and furnish procedures and all critical dimensions for jacking and hoisting, including axle, tire, and jacking pad locations
 - iv. Provide two examples (and references) of Mobile CCTV systems of service proven design meeting the requirements of TS Attachment 3
 - v. Provide a detailed description of the propulsion system which shall include a written narrative, a block diagram showing major propulsion system components, an illustration showing the physical layout of propulsion components and high-

voltage wire routing within the vehicle, and a detailed wiring diagram and/or electrical schematic for the high-voltage system. The Contractor shall be required to provide a list of applicable industry standards that the proposed propulsion system meets.

2. Project Implementation Approach

- a. Project Overview – Narrative of Approach and Capabilities
 - i. Provide a description of how the Bidder plans to organize and manage the project
 - ii. Clearly demonstrate how the Bidder's experience and capabilities are suited to furnish and deliver 45 new Battery Electric Buses in full compliance with the requirements of the Technical Specifications and RFP.
 - iii. Discussion on how the Bidder will coordinate, organize and prepare all required contract deliverable requirements (CDRs) and manage the Design Review Process.
- b. Manufacturing Facility and Capabilities
 - i. Identification of the location where the buses will be manufactured, final assembled, and locally commissioned/tested. Define the experience level of these locations, the facility size, and throughput capacity.
 - ii. Identification of current and expected workload, backlog, and capability to implement this order within the proposed schedule.
 - iii. Prime Contractor's and major suppliers' present and expected contract backlog, and how this order will "mesh" with existing and expected orders.
- c. Pilot Bus Program Plan - Design Review, Engineering/ Integration, Safety, Quality Assurance, Testing, and First Article Inspection Approach:
 - i. Provide a single flow chart on how the Pilot Bus Program efforts will be managed. Narrative should be keyed to the flow chart. The plan shall also provide details on how the design process will remain focused to meet the Final Design Review schedule and establish the Baseline Design Configuration.
 - ii. Define how the Contractor will comply with the latest Altoona Testing/qualification requirements. Define what changes were made to the bus design resulting from the issues identified at Altoona
 - iii. Describe how MBTA review comments will be fed back into the overall engineering design effort.

- d. Software Escrow

Submit a proposed complete Software Escrow package in line with the requirements of TS Section 80 to include:

- i. Qualifications of proposed Escrow Agency
- ii. Type of software storage and proposed back-up schedule

- iii. Explanation of software escrow process including point of contact information, account access, and submission of updates
- e. Material Procurement and Control Procedures:

Bidder shall provide,

 - i. a comprehensive description of their material supply and control procedures
 - ii. Describe existing material procurement control procedures implemented and the proposed approach on this program
 - iii. identify any current, potential, and anticipated supply chain constraints

3. Optional Work Scope

Provide a detailed proposal for the following options, including examples of successful implementation, service proven design concepts, and additional areas of interest as noted below. The Proposer shall include

a. OPTION 1 – Up to an Additional 315 New Low Floor Battery Electric Buses

The Authority reserves the right to exercise through Option 1 up to 315 additional new Battery Electric Buses as defined in Technical Specification VE21-054 with configuration confirmed by two pilot buses.

b. OPTION 2 – Up to 100 New Low Floor Battery Electric Buses Configured for Street Side Boarding

The Authority reserves the right to exercise through one or more option(s) for furnishing through Option 2 up to 100 new Battery Electric Buses configured for street side boarding as defined in Technical Specification VE21-054 with configuration confirmed by two pilot buses.

The Bidder shall provide:

- iv. For Bidder's existing 40 foot BEBs configured with streetside boarding
 - 1. cutsheets and vehicle data for their 40 foot BEBs configured with streetside boarding
 - 2. Altoona and Shaker table test results
 - 3. Bidder's confirmation their 40 foot BEB with streetside boarding will meet all Technical Specification requirements
- v. If the Bidder does not currently have Altoona qualified 40 foot BEBs configured with streetside boarding

1. Bidder's concurrence their proposed 40 foot BEB with streetside boarding will meet all requirements of Technical Specification VE21-054 and Attachments
2. Timeline from inception to Pilot bus completion for the design, development, Shaker table tests, and Altoona testing (passing)

c. OPTION 3 – Energy Storage System (ESS) Extended Warranty

MBTA reserves the right to exercise an option for the Contractor to provide an extended warranty on the ESS as specified in RFP Section 9.3 for an Authority defined quantity of buses.

d. OPTION 4 – Energy Storage System (ESS) Lease

MBTA reserves the right to exercise an option for the Contractor to provide a lease for the Energy Storage Systems (ESS) as specified in Technical Specification VE21-054 Section 81.4 for an Authority defined quantity of buses.

e. OPTION 5 – Q'Straint Quantum Wheelchair Restraint System

MBTA reserves the right to exercise an option for the Contractor to provide Q'Straint Quantum wheelchair system as specified in Technical Specification VE21-054 section TS 81.5 and TS Attachment 4 Section E for an Authority defined quantity of buses.

f. OPTION 6 – License Plate Recognition System

MBTA reserves the right to exercise an option for the Contractor to provide a License Plate Reader system as specified in Technical Specification VE21-054 section TS 81.6 and TS Attachment 8 for an Authority defined quantity of buses.

g. OPTION 7 – Vinyl Exterior Color Scheme

MBTA reserves the right to exercise an option for the Contractor to provide a vinyl wrap exterior scheme in line with Technical Specification VE21-054 section TS 81.7 and TS Attachment 1 for an Authority defined quantity of buses.

h. OPTION 8 – Tire Pressure Monitoring System

MBTA reserves the right to exercise an option for the Contractor to provide a tire pressure monitoring system specified in Technical Specification VE21-054 section TS 81.8 for an Authority defined quantity of buses.

i. OPTION 9 – Exterior Displays

MBTA reserves the right to exercise an option for the Contractor to provide exterior advertising sign frames as specified in Technical Specification VE21-054 section TS 81.9 for an Authority defined quantity of buses.

j. OPTION 10 – Passenger Compartment Antimicrobial Surface Treatment

MBTA reserves the right to exercise an option for the Contractor to provide surface treatment system(s) as specified in Technical Specification VE21-054 section TS 81.10 for an Authority defined quantity of buses.

k. OPTION 11 – Mobileye Advanced Driver Assistance System

MBTA reserves the right to exercise an option for the Contractor to provide Mobileye Advanced Driver Assistance System as specified in Technical Specification VE21-054 section TS 81.11 and TS Attachment 9 on an Authority defined quantity of buses.

l. OPTION 12 – Dual-sided LCD Passenger Information Screen

MBTA reserves the right to exercise an option for the Contractor to provide Dual-Sided LCD Passenger Information Screens as specified in Technical Specification VE21-054 section TS 81.12 and TS Attachment 10.

m. OPTION 13 – Geofencing System

MBTA reserves the right to exercise an option for the Contractor to provide, install, and fully integrate a Geofence system that will disable the auxiliary heater when in diesel mode, thereby providing for zero-emissions operation. Additionally, the Geofence System shall limit speeds in areas designated by the Authority. The Contractor shall provide a Geofence System that shall meet all requirements of Technical Specification VE21-054 section TS 81.13, on an Authority defined quantity of buses.

4. Project Schedule

- a. The Bidder's project delivery schedule shall include a narrative that provides information regarding:
 - i. Assumptions used in developing the schedule. The description shall be sufficient to allow full understanding of the assumptions the Bidder has made and determined are required in order to meet the schedule requirements of the Technical Specifications and Contract Documents.
 - ii. Major component materials and supplies/equipment (including all items with lead times greater than 3 months).
 - iii. Identification of major risks to achieving the schedule.
 - iv. Identification of critical path activities.
 - v. Explanation of the organization's historic performance with regard to schedules (or separate explanations for the design and implementation efforts if this is a new team or joint venture).
 - vi. Attach Project Schedule as Appendix A
- b. Serial Production Plan and Schedule:

Bidder shall demonstrate, through a single flow chart and narrative, how the serial production / manufacturing effort will be managed. The narrative should be keyed to the flow chart. Factors to be addressed include:

- i. Interface and controls between the Prime Contractor's design and manufacturing groups.
- ii. Interface and controls between Prime Contractor's and subcontractor's manufacturing groups.
- iii. Interface and controls between manufacturing and quality groups.
- iv. Interface and controls between Authority production/delivery team and manufacturing groups
- v. Bidder's documentation resources, including all specifications and standards identified in the Technical Specifications.

c. Option 2A Production Plan and Schedule (If awarded at Contract NTP):

If Option 2A is awarded at Contract NTP, the Contractor would be required to provide 35 buses configured with streetside boarding with two pilot buses due in second quarter of calendar year 2024 and all serial production buses delivered in the fourth quarter of calendar year 2024 with the last bus delivered no later than December 31, 2024. Bidder shall demonstrate, through a single flow chart and narrative, how the Option 2 (Streetside Boarding) design, qualification, testing, production / manufacturing effort will be managed if Option 2 is awarded at Contract NTP. The narrative should be keyed to the flow chart. Factors to be addressed include:

- i. Bidder's project plan/schedule and affirmation their proposed 40 foot BEB pilot and serial production buses will meet the requirements of Technical Specification VE21-054 and will be delivered to the Authority as required per this RFP
- ii. Design process and all steps through qualification testing including Altoona and Shaker table testing.

5. Quality Management Plan

A flow chart and narrative shall be provided to describe the Bidder's Quality Assurance organization. The narrative should be keyed to the flow chart. Factors to address include:

a. Quality Management/Control Plan

Provide a thorough description of the Plan and how it will be implemented and maintained throughout the Project.

Attach complete Quality Management Plan as Appendix B.

b. Quality Assurance / Quality Control Team Roles and Responsibilities

Provide a complete description of the Bidder's Quality Assurance/Quality Control program. This description must include:

- i. The structure of the Bidder's QA/QC Department.
- ii. How quality of sub-supplied material is confirmed and managed.
- iii. How Quality Control problems are identified, documented, and fed back into the manufacturing process to be resolved through corrective actions.
- iv. How Configuration Control is managed, including design variation due to manufacturer or vendor updates during production.

6. Qualifications of Firm and Staff

a. Firm Experience and Quality of Work:

Discuss Bidder's qualifications as a business entity including past performance on new bus builds completed in the past ten years

b. Past Projects and References:

Provide a complete list of customers (include name, title, telephone, and email) and quantity of vehicles that the bidder/contractor has provided buses to with comparable technology within the last six (6) years.

c. Staffing Plan:

Provide a staffing plan that identifies the project manager(s) and any other key technical personnel, who will be assigned to the project. Submittal should include personnel resumes. At minimum, this should include the certified network engineer (TS Attachment 3, Section 1.1 (M)), safety engineer, project manager, design review team members, plant production manager, QA team members, launch manager, and RFP Section 7.4 Technical Specialist/Analyst.

d. Organization of the workforce and personnel utilization:

Submit an organization chart, Identify total resources that will be allocated to the project, for the design review process, first article inspections, production, and other key areas as deemed appropriate.

12.2.9. Exceptions, if any

Any Exceptions must be specifically related to a paragraph and/or specific part of the solicitation or technical specification. Bidder shall provide rationale in support of the exception and fully explain its impact, if any, on the vehicle performance, schedule, cost, interfacing equipment / infrastructure, lifecycle, maintainability, and specific requirements of the solicitation. Each listed exception may be up to two (2) pages in length.

Provide the rationale in table format including the content detailed below. **Failure to comply with the terms and conditions and technical requirements of the solicitation may result in the Bidder being removed from consideration for contract award.**

Solicitation Document	Paragraph/Page	Requirement	Rationale	Benefit to MBTA	Impacts On
RFP, Specification, Exhibits, Attachments, Amendment	Applicable Document, Page, Section, Paragraph, Sentence	Identify the requirement or portion to which the exception is taken	Bidder's justification why the requirement will not be met and its alternative strategy or position	Include the benefit to MBTA if the proposed alternate strategy or position is approved	Schedule, Cost, Vehicle Performance, Interfacing Equipment / Infrastructure, Lifecycle, Maintainability, Other

12.2.10. Promotional Literature

Bidders may provide up to eight (8) pages of promotional literature. If provided, this will not be used to score or rank proposals.

12.2.11. Conceptual 'Green' Bus Paint Schemes

As part of their proposal, the Contractor shall provide three conceptual paint schemes promoting 'green' battery electric buses while highlighting Authority branding and service area. This will not be used to score or rank proposals.

13. PRICE PROPOSAL

13.1. Price Proposal Submission

Section 1.9 details the process and specific requirements for bidder responses. Responses are due both to the MBTA offices and electronically through COMMBUYS.

The MBTA reserves the right to request additional information for clarification purposes, either written or oral, from Bidders prior to award.

13.2. Tax Exemption

The MBTA is exempt from Federal Excise Tax, including Transportation Tax, and will furnish properly executed tax exemption certificates upon request. The MBTA is also exempt from Massachusetts State Sales Tax -- Exemption Number E-042-323-989. Such taxes should not be included in Proposal prices.

As an independent Contractor, the Contractor alone shall be responsible for payment of all federal, state and local taxes of all types and kinds applicable to such fees incurred under this Agreement.

13.3. Price Proposal Components

Bidders responding to this RFP must fully complete, sign, and submit RFP Attachment 5: Price Proposal. Bidders shall not: (1) leave any section of the form blank; (2) mark any section of the form not applicable (N/A) unless specifically called for in the instructions; (3) make reference to other documents unless specifically called for in the instructions; or (4) make any response conditional.

Bidders must submit their Price Proposal separately from their Technical Response, as described in Section 1.9. Bidders should submit one (1) original copy in a separately sealed envelope. In addition, Bidders should submit both PDF and Excel versions of the Price Proposal as separate files with their response through COMMBUYS.